

# AMSTRAD PCW

# 8000 PLUS

8256 • 8512 • 9512

## WHICH PRINTER FITS?

FIVE BUDGET DOT MATRIX PRINTERS REVIEWED

- FONT SPREADSHEETS
- TRAVEL WRITING
- BUILD YOUR OWN DESK
- ARTIFICIAL INTELLIGENCE
- DTP EXPLAINED
- GOING UP TO LOCOSCRIPT 2
- CP/M FOR BEGINNERS



# cp software

NEW

## The London School of Bridge's BRIDGE PLAYER GALACTICA with Integrated Tutor

INTEGRATED BRIDGE PLAYER AND TUTOR, WITH POWERFUL CARD PLAY AND WEALTH OF SUPERB FEATURES, OFFERS YOU HOURS OF ENJOYMENT IN THIS CLASSIC GAME OF COMMUNICATION AND SKILL.

The BRIDGE PLAYER, designed for players of all standards, gives literally millions of possible hands, simulating the game with full realism. Bidding uses the ACOL system with Stayman, Blackwood, Gerber, Grand Slam Force and Unusual No-trump conventions.

The BRIDGE TUTOR contains 100 tutor hands, selected by co-author, Nicola Gardener, World Bridge Champion and Olympic medalist, ranging from fairly straightforward hands to endplays and squeezes + bidding and play with full information displays + post mortem facility + scoring of hands to rubber + input own hands, save/load hands to disc + solves double dummy problems after trick 8 + special cheat options: bias the deal, peep at cards + and much, much more

We think you'll be truly amazed at the power of this world beating Bridge

BRIDGE PLAYER GALACTICA, Compatible all PCW's £29.95

NEW

## LIGHTNING BASIC PLUS PLUS

90+ NEW BASIC KEYWORDS, 100% PCW COMPATIBILITY, THE ULTIMATE MALLARD BASIC EXTENSION.

Makes BASIC programming much simpler and more efficient. It also makes extraordinary programs possible.

New PLUSPLUS adds yet more features including

- ++ Run two programs concurrently
  - ++ Window save and load
  - ++ Pull down menus easily created
  - ++ New keyboard scans and mouse control
  - ++ Easy to use sprite designer
  - ++ Easier loading and string handling
  - ++ Now with 30+ graphics commands at high/medium resolution
  - ++ RUN some COM programs from BASIC
- All graphics, editing, searching, listing, dumping, printing, timing, sound facilities included. Masses of demonstration and utility programs.

For the first time in a long while I've been given a surprise by a computer program. Lightning Basic should delight every PCW owner and, at the price, is nothing short of remarkable. Buy it - PCW Official Magazine.

LIGHTNING PLUSPLUS, Compatible with all PCW's £24.95

## CLASSIC GAMES 4 Special Edition

FOUR CLASSIC GAMES, NOW COMPILED ON ONE DISC AND BEAUTIFULLY PACKAGED, MAKES THIS THE IDEAL GIFT FOR THE PCW OWNER.

CLOCK CHESS 88 - "strongest chess for PCW, well done 3D graphics, enjoyable to play against, 5 out of 5" - 8000 PLUS

BRIDGE PLAYER 2000 with TUTOR - "very well thought through, fine display, gets the most out of Bridge on the computer" - PC PLUS

BACKGAMMON - "good implementation, uses the doubling cube properly, good graphics" - 8000 PLUS

DRAUGHTS - "extremely strong play, pleasant to use 3D graphics" - 8000 PLUS

FOUR GREAT GAMES FOR THE PRICE OF ONE

CLASSIC GAMES 4 - Compatible with all PCW's £19.95

## CLOCK CHESS 89

CLOCK CHESS 89 is the strongest and most versatile chess program yet for the PCW.

CLOCK CHESS 89 has been tested against a wide range of other chess programs and has shown itself to be much stronger than any of them

- + Massive 44,000 byte, extendable, opening library
- + Stunning 3-D graphics
- + Annihilates other PCW chess games
- + Special easy mode for beginners
- + Huge range of options
- + Simple cursor controlled move input
- + Full information displays
- + Follows all rules of chess (underpromotion, draws etc.)
- + And much, much more

"CLOCK CHESS is a lively and interesting opponent. An aggressive program that keeps you on your toes...it dices up Colossus Chess nicely" Mike Basman, UK Chess Champion.

CLOCK CHESS 89 is compatible with all PCW's £19.95

## all you ever wanted to know about GRAPHICS, THE UNIVERSE AND EVERYTHING FOR PCW but were afraid to ask PLUS 2

SECOND UPGRADE - WITH YET MORE HITHERTO UNPUBLISHED INFORMATION - THIS HAS TO BE THE ESSENTIAL TOOLKIT FOR THE PCW PROGRAMMER

100+ ROUTINES AND 100% PCW COMPATIBILITY

- + Comprehensive manual and full documented source code
- + Devastating graphics using fast smooth sprites.
- + Directly access to RAM disc.
- + User Defined Graphics.
- + Modify character set, send enlarged graphics to printer.
- + Experiment with sound routines.
- + Direct access to video Ram.
- + Low level hardware info, ports and edge connect diagram.
- + Easy to use from Basic, Pascal, C, assembler etc.
- + Full source code supplied.
- + Page in and directly access all 512K RAM segments.
- + Bit mapped keyboard scanner for fast games software.
- + Tips on speeding up video RAM access.
- + Set/reset/test pixels, Linedraw/erase, Fill, reate/plot/move Sprite, New char sets, UDG's, Screen invert, Screen on/off, Sound, Double height/width chars to printer, Joystick, Control disc motor, Software reset, Memory save/load to disc/ramdisc, System clock, Scan keyboard, Full control over dot matrix printer...AND MUCH, MUCH MORE.

As used by REAL-TIME SOFTWARE to write Starglider

GRAPHICS PLUS 2 is compatible with all PCW's £24.95

Please rush me the following titles for my PCW:-

| PRODUCT                      | PRICE                            | QUANTITY    |
|------------------------------|----------------------------------|-------------|
| All you ever wanted - PLUS 2 | £24.95                           |             |
| Bridge Player Galactica      | £29.95                           |             |
| Lightning Basic PLUSPLUS     | £24.95                           |             |
| Clock Chess 89               | £19.95                           |             |
| Class Games 4                | £19.95                           |             |
| Bridge Player 2000           | £15.95                           |             |
| Clock Chess 88               | £12.95                           |             |
| Knife Plus, Disc Doctor      | £19.95                           |             |
| Pascal 80 with tech support  | £49.95                           |             |
| DevPack2 with tech support   | £49.95                           |             |
| Postage to Europe (per item) | £1.20                            |             |
| Postage ex Europe (per item) | £2.00                            |             |
| UK post and packing included |                                  |             |
| card no                      | Please debit my ACCESS/VISA card | Expiry date |

|  |  |   |
|--|--|---|
| I enclose a cheque/postal order to the value of: |  | £ |
| Name   |  |   |
| Address  |  |   |
| Postcode   |  |   |
| Signature  |  |   |

CP SOFTWARE, Stonefield House, 198 The Hill, Burford, Oxfordshire, OX8 4HX  
Credit Card Hotline: 0993 82 3463 Telex: 57784 MCCL G



# OPENING MENU

## JUNE MENU

Printers Examined  
 ♦ Spreadsheets  
 First Reviews  
 Super News  
 Buyer's Guide

**5 NEWS**  
 Products, people and progress

**17 LED MODULE**  
 Transforming your PCW into a window on the world

**18 PETER'S PROGRESS**  
 The trials and tribulations of computerising a business

**20 COMMS**  
 Counting the cost and keeping it down

**22 UPGRADING TO LOCOSCRIPT 2**  
 Why should you?

**26 DESKTOP PUBLISHING**  
 Boxing clever: Dave Axford shows you how

**29 CP/M**  
 The twist in the tail

**32 CASE IN POINT**  
 Trail-blazing with the PCW

**34 TRAVEL WRITING**  
 How to earn an honest buck on the hoof

**38 QUICKIES**  
 A LocoMail tutorial and a PCW-generated diary

**40 PAUSE FOR THOUGHT**  
 Steve Patient gets carried away

**43 SPREADSHEETS**  
 Four compared: figuring out the differences

**49 ARTIFICIAL INTELLIGENCE**  
 Can your PCW think for itself?



**10 WHICH PRINTER?**  
 Five budget dot matrix printers to leave you printing pretty

**MAKING A STAND** 54  
 How to compute in comfort

**PUBLIC DOMAIN** 57  
 Gathering it in

**LANGFORD** 59  
 If you want him just whistle

**LISTINGS** 61  
 It may be Basic but the plot thickens

**TIP OFFS** 66  
 More tips than a Cherokee's quiver

**THE GOOD SOFTWARE GUIDE** 75  
 Databases, communications, educational packages and programming

**SPECIAL OFFERS** 81  
 Roll up! Roll up!

**POST SCRIPT** 86  
 The writes and the wrongs

**BACK PAGE** 90  
 Competition time!

PUBLISHED BY  
 FUTURE PUBLISHING LTD

EDITORIAL  
 AD PRODUCTION

4 QUEEN STREET  
 BATH • BA1 1EJ  
 TEL • 0225 446034  
 FAX • 0225 446019

EDITOR  
 Steve Patient

PRODUCTION EDITOR  
 Sharon Bradley

STAFF WRITER  
 Tim Smith

ART EDITOR  
 Julie Barnes

ART ASSISTANT  
 Martin Parfitt

AD PRODUCTION  
 Vivian Dean

ADVERTISING  
 Elaine Brooks

PUBLISHER  
 Kevin Cox

SUBSCRIPTIONS  
 SPECIAL OFFERS

THE OLD BARN  
 SOMERTON  
 SOMERSET • TA11 7PY  
 TEL • 0458 74011

MAIL ORDER QUERIES  
 Sarah Richards/Christine Stacey

SUBSCRIPTION ENQUIRIES  
 AVON DIRECT MAIL  
 UNIT 12, OLD MILL RD, PORTISHEAD  
 BRISTOL BS20 9ES TEL 0272 842487

COVER PHOTOGRAPHY  
 STUART BAYNES PHOTOGRAPHY  
 BATH, TEL • 0225 442148

COLOUR ORIGINATION  
 DP GRAPHICS  
 HOLT, WILTS TEL 0225 783004

PRINTING  
 REDWOOD WEB OFFSET  
 YEOMANS WAY  
 TROWBRIDGE • WILTS

DISTRIBUTION  
 SEYMOUR PRESS  
 334 BRIXTON ROAD  
 LONDON • SW9 7AG

© FUTURE PUBLISHING LTD 1988  
 8000 Plus is an independent publication. The  
 company who produce it - Future Publishing Ltd -  
 have no link with Amstrad plc.

We welcome contributions from readers - please  
 enclose a SAE with submissions if return of the  
 original is required. Payment for accepted articles  
 is made 4 weeks after publication date.  
 We take great care to ensure that what we print is  
 accurate, but we cannot accept liability for any  
 mistakes or misprints. No part of this publication  
 may be reproduced in any form without our  
 permission.

LED Module p17



Case in Point p32

Peter's Progress p18



Travel Writing p34



# Want a computerised address book...

M: group 0/ADDRESS.DAT LocoFile. Printer idle. Using M:  
 Index: Surname Unique Item: Address Col: 4/45 Line: 6/15  
 f1=Actions f2=Index f3=Item f4=Print f5=Goto f6=Find f7=Extract f8=Options EXIT

Record:9

| First name | Surname |
|------------|---------|
| Sally      | Owen    |

Address  
 6 Loraine Gardens  
 Watford  
 Lancs  
 BR4 8TS

Home phone 0923 12497  
 Work phone 091 133 7865

Ms S Owen  
 Dear Ms O  
 Thank you  
 Superclea  
 As you ri  
 indeed fi  
 range off  
 I am sure that the Supercleaner MkS will bring you the same satisfaction at  
 home as you obviously get from the Office Valet Deluxe in your work.  
 Yours sincerely  
 Joan Smith  
 Customer Services Manager

...THAT YOU CAN SEARCH  
AUTOMATICALLY?

Goto:

+

- Record with this key
- Next record of current index
- Previous record of current index
- First record of current index
- Last record of current index

... KEPT IN ORDER  
AUTOMATICALLY?

Main key type

- Alphabetic
- Numeric
- ✓ Date order
- ✓ Day/Month/Year
- Month/Day/Year
- Year/Month/Day
- Day/Month
- Month/Day

...THAT PRODUCES LABELS  
AUTOMATICALLY?

Print extract

- ✓ First name
- ✓ Surname
- ✓ Address
- Home phone
- Work phone

- Print
- Select all
- Select none

## THEN YOU NEED LOCOFILE

– the new database for LocoScript 2 on your Amstrad PCW

LocoFile lets you use your PCW for more than just wordprocessing, and it works inside LocoScript so that you can have access to your data at any time.

With LocoFile you can keep information sorted into order and quickly available. It takes just a couple of keystrokes to copy a name and address from a LocoFile address book and paste them directly into your letter.

(Of course LocoFile can handle much more than just address books.)

LocoFile can print your data too. Print just one card, a complete card index, or just the records you've changed so you can keep your existing card index up to date.

And all this is always available – once you've installed LocoFile onto your Star of-Day disc you can call it up at any time with just a couple of keystrokes.

Please send me the following:

FOR THE AMSTRAD PCW 8256/8512

- LocoScript 2 & LocoSpell £34.90
- LocoScript 2 £24.95
- LocoFile } for £29.95
- LocoMail } LocoScript 2 £29.95
- LocoSpell } £19.95

FOR THE AMSTRAD PCW 9512

LocoFile

£29.95

Note: All prices include VAT and UK postage

☐ I enclose a cheque for TOTAL £

☐ Please charge my Access/Visa card

Signed

Send to Katy Buchan at:



LOCOMOTIVE  
SOFTWARE  
Allen Court, Dorking  
Surrey, RH4 1YL

TEL 0306 740606

# LocoFile

For LocoScript 2

ON THE PCW8256/8512/9512



## FOREWORD

### There's no fool like an old fool

Of course the converse of the title is that age brings a measure of wisdom. But why should I be worrying my little balding head with these apparent paradoxes?

Well, what's prompted it is the number of letters I get from those lucky enough to be 'retired' from the rat race and using their time to satisfy their own desires rather than those of their erstwhile employers (I'm going to get to the point eventually).

Another piece of accepted lore, at least among the young, is that anyone over forty is incapable of either absorbing change or coping with computer technology. Why is it then, I ask myself (and anyone else who cares to listen) that some of the cleverest, most detailed and comprehensible tipoffs come from retired readers? Why are the best books on computers written by men and women often well past their 'prime'?

The very famous Ian Sinclair is no spring chicken (I asked and he's 57, which means he's published an average of 1.789 technical books a year for life) and he knows more about all aspects of computers than any three other people, unless that person is John Hughes, who is even older and can compute in Welsh, man.

The fact is that the majority of young computer magazine readers are only expert in games software – which often loads itself and requires no more than a joystick for complete control. Many wouldn't have a clue if confronted by a command line, let alone a spreadsheet or database.

So, are all the hundreds of thousands of people who won't see their twenties again (or even their thirties) who've gone out and bought a PCW machine foolish or wise? Personally, I barely considered an IBM, an Amiga, or an Atari. I only wanted an inexpensive business machine for word processing, one I could get some work out of, and I've got it, and I think buying it was one of my wiser decisions.

S Patient

## Healthy and Hacking

In response to increasing anxiety concerning the health risks associated with long-term use of Visual Display Units, Computer Valet of Chaddesden in Derby will be sending out free copies of 'Working with VDUs' to the first 50 readers to write and ask for one.

This Health and Safety Executive booklet answers all of the most commonly asked questions about VDUs – including the effects of radiation on unborn babies, whether working with a VDU can damage your eyes or your sight and finally if there is any risk of VDUs inducing epilepsy. It also shows you how to adjust your workplace so that you can sit at your VDU more comfortably.

If you've got any nagging doubts that you'd like to have assuaged or confirmed one way or the other then send a first class stamp together with your name and address to Computer Valet, Booklet Offer, PO Box 89, Derby DE1 9LZ.

### Questions and answers

#### Q: VDUs give off radiation?

Yes. Visible light is a form of radiation which enables us to read the screen, but sensitive instruments can also detect other forms of radiation.

#### Q: Can the radiation from a VDU be harmful to health?

Most of the radiation emitted by VDUs is very much less than that from natural environmental sources such as the sun and all is well below the levels considered harmful by responsible expert bodies such as the National Radiological Protection Board (NRPB) in the UK.

#### Q: Do I need any protective devices against the radiation from a VDU such as special spectacles, aprons, aprons etc?

No.

#### Q: If I become pregnant could the radiation from a VDU harm my unborn child?

The NRPB do not consider that the emissions from a VDU will put either you or your unborn child at risk. They advise that even if you work full-time at a VDU during your pregnancy you will receive radiation which in effect is no higher than the natural background level (in other words it does not add significantly to the natural background level).

Everything you wanted to know about VDUs.

## Quite a Relief

OXFAM, Britain's leading overseas aid and development charity, will be moving with the times when it launches its new appeal for the needy this summer.

Says Richard English, the charity's Appeal Manager, 'We are particularly interested in any games, leisure or home computing software that people no longer need for whichever make or type of computer. By donating them to one of our shops, we can resell them and raise substantial amounts of money to help people suffering from hunger, disease, homelessness and extreme poverty around the world.'

OXFAM, who will be accepting donations throughout June and July in any of their UK outlets, will

also be grateful to any manufacturer, distributor or retailer who could take the time to sort through software, consumables or even hardware to help the hungry.

The majority of donated items

will then be sold at selected London shops during a Special Computer Promotion Month starting on June 27th. Contact Richard English on 01 585 0220 for further details.

# NEWS

## Disc News

The three inch disc saga continues. The plot twists, turns and thickens while many users begin to reach the end of their tethers. Last month we looked at the story from the Amstrad end. This month the focus switches somewhat.

The basic problem is that there are no UK based 3" disc manufacturers. There are a few disc duplicators in this country but no British company actually has production lines for three inch discs. Consequently UK PCW owners are at the mercy of overseas manufacturers. The distributors in this country, the most prominent being Amstrad/Amsoft and Disk Express, are also in the same position.

Since late last year Disk Express have been party to an agreement with Amsoft whereby Disk Express import the discs, normally high quality Maxells from Germany, and append the Amsoft label to them under licence. In short Disk Express pay Amsoft a royalty for the use of the name and the discs are circulated by both firms in the normal manner.

This type of licensee and licensor marketing can in fact work in favour of the consumer because the manufacturer is less able to

play one off against the other and maintain price prices.

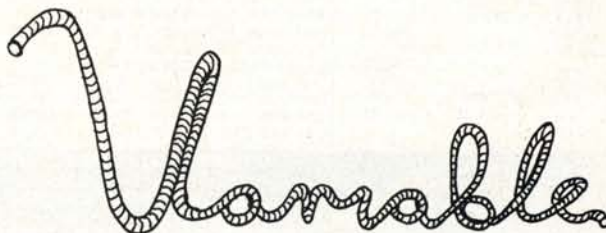
However without a UK manufacturer a rather convoluted route emerges for the 3" disc. In effect discs come in via Germany or the Far East, go to Disk Express, on to Amsoft and out to Europe again. What this all means in terms of availability is that many of the companies in the UK who would previously have dealt with one supplier are now having to widen their horizons. From what we have been able to fish from the muddled waters it would appear that the price of 3" discs is not set to go down.

However, any market which has had to crisis manage as the three inch disc market has since Christmas either falls over and dies or gets its act together. The PCW market is not set for the former and from the rumours flying about in the 'business' it appears that things are finally getting sorted out. In fact new suppliers are emerging already.

So, as far as the end user is concerned, three inch discs are alive and kicking, albeit in various directions. Those companies who have been struggling to secure supplies should be in a much better position from now on.

## Dingbyte

Which well known computing word or phrase is represented by the picture. Don't know? Find the answer on page eight.







# THE WEST OF BRITAIN BUSINESS SERVICES

## REMEMBER OUR PRICES INCLUDE V.A.T. & CARRIAGE !

### COMPUTERS

**SCHNEIDER - (IBM COMPATIBLES)**  
Euro PC Mono.....£439.00  
Euro PC Colour.....£599.00  
3 1/2" or 5 1/4" External 2nd Drive.....£129.50  
20Mb External Hard Drive.....£329.00  
Tower AT Range from.....£855.60  
Portable AT.....£1895.00

**AMSTRAD PCW's + FREE DISC STORAGE BOX & 3" DISC CONTAINING DATABASE, GRAPHS PACK, PSYCHOLOGICAL TEST + GAMES ETC.**

PCW8256.....£374.95  
PCW8512.....£469.95  
PCW9512.....£515.00

#### PC's (IBM COMPATs)

Call for VERY low prices for:  
AMSTRAD (including the PC2000 Series),  
ITC (XT & AT's), AKHTER, SAMSUNG,  
OPUS, SANYO, COMMODORE PC's  
AND MORE INCLUDING:-

\*\*\*\*\*

**\* THE EXECUTIVE RANGE FROM OSICOM \***  
**SAMPLE PRICES: EXECUTIVE 88/10**  
10 Mhz/640k RAM/AMBER MONITOR/SINGLE DISC DRIVE/101 KEY AT STYLE KEYBOARD 4 EXPANSION SLOTS AND 20MB HARD DISC! - WE USE THEM ON OUR OWN NETWORK SYSTEM - ALL IN AT £872.85  
SEND FOR OUR FREE CATALOGUE AS ABOVE BUT 40MB! ONLY £993.60  
EXECUTIVE 286/12 - NETWORK MASTER! 12.5Mhz/640k RAM/AMBER MONITOR/20MB HARD DISK + DISK CACHE/101 KEY KEYBOARD (EGA CARD AS STANDARD).....£1178.75  
AS ABOVE BUT 44MB & EGA !.....£1737.65

\*\*\*\*\*

#### PORTABLE PC's

**AMSTRAD PPC, Z88, SCHNEIDER AT etc. PRINTERS** Come in all shapes and sizes to suit the job you have in mind - or your pocket! We can supply 9 to 24 pin and Daisywheels through to Lasers:- CITIZEN (With their 2 Year Guarantee, AMSTRAD including the LQ3500 & LQ5000, PANASONIC, HEWLETT PACKARD, AND MORE!

#### EXAMPLE PRICES:

LOW COST/HIGH PERFORMANCE DOT MATRIX  
CITIZEN 120D/Parallel Interface.....£155.00  
CITIZEN HQP45 24 PIN, 132 COLUMN.....£399.00

LOW COST/HIGH PERFORMANCE DAISYWHEEL:  
GPR2000 or DWP 1120.....£279.95

We strive hard to be the Friendliest and most helpful place around with **LOW PRICES** and **FAST DESPATCH** with after-sales support that will bring you back for more.

### PCW HARDWARE

PCW 2nd 3" drive (FD4).....£129.95  
MEMORY UPGRADE - PRICES DOWN !!!  
.....£54.95  
TIMATIC 20 MB PCW HARD DISK.....£569.95

**PAGE 5.25" 2nd drive - with its own built in interface. Comes with FREE TDOS & external power supply. Very easy to fit. We use one for DATA TRANSFER from PCW/PC/PCW!**  
**£184.95**

'MARGIN MAKER' - aligns paper.....£10.50  
PCW 8256/8512 SHOULDER BAG.....£22.95  
PCW 9512 SHOULDER BAG.....£33.35  
S.C.A. SERIAL/PARALLEL INTERFACE with Real Time Clock.....£57.95  
without Real Time Clock.....£52.75  
AMSOFT or PACE SER/PAR INTERFACE.....£54.95  
SPIKE PROTECTOR - Helps protect your Computer against Power Surges.....£11.75  
PCW8000's Wire Printer Stand.....£10.25  
Data Switches - 2 + 1.....£39.95  
Acoustic Hood for the PCW9512 Printer  
Flat Pack.....£37.89  
3" Disc Head Cleaner.....£8.95  
Clean Print: Cleans PCW Printer.....£16.75  
Mouse Mats.....£4.99

### \* LINK YOUR PCW TO A PC! \*

If you wish to run your accounts on a PC but use your trusty PCW as a very cost effective workstation (and as a stand alone PCW!) send for details of Compact Accounts PC2PC system!

### MODEMS

**MIRACLE TECHNOLOGY MODEMS**  
WS4000.....£179.95  
WS4000PCW, c/w INTEGRAL INTERFACE FOR THE PCW & CONNECTING LEAD!.....£179.95

#### PACE - MODEMS

Linnet-Intelligent, V21/V23.....£149.95  
Cable to PCW Interface.....£15.99  
Dialup-Communications Software.....£67.75

#### \*\*\*\*\* BBD DUST COVER SET \*\*\*\*\*

\* PCW8256/8512.....£11.95 \*  
\* PCW9512.....£13.95 \*  
\* PC1640/1512 state col or mono.....£9.00 \*  
\* AMSTRAD PPC.....£6.00 \*  
\* PACE Disc Drive Cover.....£5.75 \*  
\* PLEASE STATE MODEL WHEN ORDERING \*

#### \*\*\*\*\* DISCS \*\*\*\*\*

CF2 3" For the PCW/PCP x 10.....POA

If you are not CERTAIN as to what your requirements are please phone

CF2 3" For the PCW/PCP x 5.....POA  
3.5" Athana DS/DD Discs x 10.....£15.95  
5.25" XIDEX DS/DD Discs x 10.....£7.49  
5.25" XIDEX DS/DD Discs x 25.....£15.99  
5.25" XIDEX DS/DD Discs x 50.....£29.49  
5.25" XIDEX DS/DD Discs x 100.....£54.95  
5.25" 3M DS/DD Discs x 10.....£11.25  
5.25" 3M DS/DD Discs x 50.....£49.75

#### DISC STORAGE

DS10 CF2 3" (Holds 10).....£6.25  
DS40L 3"/3.5" Lockable.....£9.75  
CT-3100 3"/3.5".....£11.75  
CT-5070 5.25" (Holds 70).....£9.75  
DS100L 5.25" (Holds 100).....£11.75

#### PRINTER RIBBONS

**REFRESH ! - BLACK RE-INKING SPRAY.....£8.95**  
Extends fabric ribbon life - will re-ink up to 30 ribbons !!!

#### EXCELLENT VALUE COMPATIBLES:-

PCW 8256 Fabric (14m length) x 2.....£7.49  
PCW 8256 Carbon Multistrike.....£7.49  
PCW 9512 Carbon Multistrike.....£6.99  
PCW 9512 NEW Fabric Type.....£6.99

#### AMSTRAD BRANDED

PCW8256 Fabric.....x 2.....£14.99  
PCW8256 Carbon Multistrike.....x 2.....£14.99  
PCW9512 Carbon Multistrike.....x 2.....£13.99  
PCW9512 NEW Fabric Type.....x 2.....£13.99

#### NEW ! - COLOUR RIBBONS:-

PCW 8000 Series Fabric:  
Green / Red / Blue / Brown / Yellow / Purple / Magenta or Cyan.  
Any Two.....£10.75  
Any Five.....£26.75  
Any Ten.....£49.75  
\* MANY OTHER RIBBON TYPES AVAILABLE \*

#### COMPUTER PAPER

11" x 9.5" Continuous:-  
SP/05 1 ply plain - 500 sheets.....£7.95  
SP/10 1 ply plain - 1000.....£11.95  
SP/20 1 ply plain - 2000.....£16.95  
DP/05 2 ply plain - 500.....£16.95  
DP/10 2 ply plain - 1000.....£26.95

11" x 14.5" Continuous:-  
1 ply plain - 500 sheets.....£8.95  
1 ply plain - 1000 sheets.....£13.95  
1 ply plain - 2000 sheets.....£23.95

**A4 - (TRUE A4) 80 gsm - Continuous:-**  
500 x Plain white/micro perf.....£12.95  
1000 x Plain white/micro perf.....£19.95  
2000 x Plain white/micro perf.....£30.95

**A4 - (TRUE A4) - Single Sheets:-**  
Plain white - 500 sheets.....£7.95  
Plain white - 1000 sheets.....£14.95

**LABELS WITH SPROCKET HOLES:-**  
One wide 3 1/2" x 1 7/16" - 500.....£6.95  
One wide 3 1/2" x 1 7/16" - 1000.....£11.95  
One wide 3 1/2" x 1 7/16" - 2000.....£21.95  
One wide 3 1/2" x 1 7/16" - 4000.....£39.95

### SOFTWARE

#### WORDPROCESSORS

PROTEXT - Full System: WordProcessor/Spellchecker/Mailmerge.....£39.75  
PROTEXT Filer (Needs Protext).....£21.75  
PROTEXT Office (Needs Protext).....£27.95  
POCKET PROTEXT: Wordpro only.....£27.95  
LOCOSPELL - links with loco II.....£27.75  
LOCOCOMBO - Locoscript II & Spell.....£29.75  
LOCOSCRIPT II - New Version.....£21.75  
LOCOMAIL II.....£23.95  
LOCOSPELL II.....£17.95  
LOCOFONTS.....£17.75  
LOCOFONT II.....£13.75  
DIGITA 'E' TYPE.....£27.75  
M.A.S.S. Easy Labeller.....£28.75  
DATABASE Spellchecker/Thesaurus.....£22.75

#### INTEGRATED SYSTEMS

MINI OFFICE PROFESSIONAL PLUS.....£37.75  
SAXON Micro Collection.....£39.95

#### SPREADSHEETS

Supercalc II.....£39.75  
Cracker II Turbo.....£44.75

**ROTATE - Available Again !!.....£21.75**  
Prints out spreadsheets sideways!

#### DATABASES

Cornix Card Index - Simple to use.....£29.75  
Masterfile 8000 - Special Offer.....£32.75  
CAMSOFT CAMBASE v1.....£35.95  
CAMSOFT CAMBASE v2.....£42.75  
DATABASE Manager AT Last Plus.....£29.75  
dBase II - new release !.....£69.95  
Also see CAVALIER SPECIALIST PROGRAMS

#### ACCOUNTS

If you are unsure exactly which package you need for your particular business please phone and we will describe the strengths & weaknesses of the various packages in clear jargonless terms - but leave you to decide. You probably need help

Money Manager Plus.....£29.75  
Digita - Business Controller.....£89.95  
Meridian Stockmarket.....£34.75

#### CORNIX

SIMPLE ACCOUNTS II - PCW.....£94.95  
New, very powerful/easy to use system.  
SIMPLE ACCOUNTS PLUS.....£44.95  
JOB ESTIMATING - new v.....£74.95  
PRODUCT COSTING - new v.....£74.95  
full details on application

#### MICRO SIMPLEX

VAT made simple - A/Cs System.....£87.75  
Micro Pub Stock.....£87.75  
video tape demo available from Micro S

#### COMPACT ACCOUNTS - unbeatable!

Accounts.....£165.75  
Accounts Plus.....£192.50  
Payroll.....£77.95  
Daybook (and others).....£54.95

#### CAVALIER SOFTWARE

InBusiness (integrated).....£139.95  
Simple Invoicing.....£29.95  
details on Cavalier range available

#### \* CAVALIER SPECIALIST PROGRAMS \*

DINER: Restaurant/Take Away A/Cs.....£55.95  
HOMEVIEW: Estate Agents - DATABASE.....£184.95  
NEWSBOY: Newspaper Del. DATABASE.....£55.95  
RE-CHORD: Music Library - DATABASE.....£29.95

#### CAMSOFT ACCOUNTS:-

PSIL - INTEGRATED. Stock/Inv./Sales/  
Purch/Nom.....£97.75  
PSPN - INT. Sales/Purch/Nom.....£73.45  
PPAY - PAYROLL (AND OTHERS).....£37.25

#### SAGE ACCOUNTS:-

Popular Accounts.....£73.95  
Popular Accounts Plus.....£104.00  
Popular Accounts Super.....£149.00

#### MAP ACCOUNTS:-

Integrated Accounts.....£99.75  
Payroll (and others).....£49.50

**OUR PRICES ALL INCLUDE BOTH V.A.T. AND CARRIAGE - NO HIDDEN EXTRAS!**

### DTP AND GRAPHICS

Stop Press and Mouse.....£64.95  
Stop Press Software Only.....£32.75  
Desktop Pub & Mouse.....£59.75  
Desktop Publisher.....£19.95  
Master Paint.....£17.75  
Master Scan.....£55.75  
Master Pack (Scan & Paint).....£62.75

### TRAINING

#### REELTIME

TOP QUALITY TRAINING COURSE ON DISC WITH INSTRUCTOR ON AUDIO TAPE  
PCW9512 - LOCOSCRIPT II.....£34.44  
PCW8256/8512 - LOCOSCRIPT.....£34.44  
PCW8256/8512 - LOCOSCRIPT II.....£34.44  
CP/M - learn to use your computer!.....£34.44  
SUPERCALC II.....£34.44  
dBASE II.....£34.44

#### IANSYST

CRASH COURSE IN TYPING - beginners.....£19.95  
Two Fingers Touch Typing.....£19.95

#### KOSMOS - LANGUAGE TUTORS

The French Mistress.....£16.75  
The German Master.....£16.75  
The Spanish Tutor.....£16.75  
The Italian Tutor.....£16.75

#### EDUCATIONAL & FUN !

Animal, Mineral, Vegetable.....£11.70  
World Wise.....£11.70  
Personal Excellence Pack.....£19.75

#### TOPOLOGIKA

Yes Chancellor! (UK Economy sim).....£14.75  
Acheton (adventure game).....£14.75  
Kingdom of Hamil (adv. game).....£14.75  
Giantkiller (maths adv. 9-16 yrs).....£14.75  
other versions available

#### SCHOOL SOFTWARE

NEW VERSIONS HAVE BEEN ISSUED BY S.S.  
Better Spelling - age 9 - adult.....£14.75  
Magic Maths - age 4 - 8.....£14.75  
Maths Mania - age 8 - 12.....£14.75  
Better Maths - age 12 - 16.....£14.75  
Physics - age 12 - 16.....£19.95  
Chemistry - age 12 - 16.....£19.95  
Biology - age 12 - 16.....£19.95

**PLEASE - If you are not certain what you are ordering does what you expect contact us first !!**

#### LEISURE

#### \*\*\* ADVENTURE GAMES \*\*\*

Fish!.....£19.75  
Lancelot - 3 Adventures in one.....£16.75  
Hitch-Hiker's Guide to Galaxy!.....£24.75  
Leather Goddesses of Phobos!.....£24.75  
\* The Professional Adventure Writer \*  
\* Write your own Adventures! \*.....£20.70  
Corruption.....£18.75  
Silicon Dreams.....£15.75  
Time and Magic - 3 games.....£11.75  
Jewels of Darkness.....£15.95  
Hollywood Hijinx.....£17.75

#### \* SIMULATIONS \*

Heathrow Flight Control and Southern Belle (Train Simulation).....£15.75  
A.C.E. Flight Simulator.....£14.75  
A.C.E. + Joystick + Interface.....£29.95  
Kempston Interface + Joystick.....£24.95  
Kempston Joystick Interface only.....£14.95  
Tomahawk - Flight Simulation.....£14.75  
Starfighter - Combat/Flight Sim.....£18.75

#### \*\*\* ACTION \*\*\*

Tetris.....£15.75  
Living Daylights.....£11.95  
Football Fortunes - need 2 players.....£13.75  
Match Day II - animated football !.....£14.25  
Batman.....£11.75  
Head over Heels.....£12.50  
Classic Collection I - 3 games.....£14.25  
Classic Collection II.....£14.25

#### \*\*\* TABLE GAMES \*\*\*

Clock Chess 89 - very powerful.....£13.75  
Cyrus II Chess - great graphics.....£13.75  
Colossus IV Chess - very strong.....£15.75  
Scrabble de Luxe.....£15.75  
Trivial Pursuit.....£15.95  
Bridge Player 2000.....£11.75  
Steve Davis Snooker - superb!.....£12.50  
Classic Games 4 - Compilation.....£15.75

### CALLERS WELCOME BUT STRICTLY BY APPOINTMENT PLEASE

If you see anything we sell being sold cheaper elsewhere phone us before you buy - Office open 9 am to 5 pm MONDAY TO FRIDAY.  
U.K. Buyers just pay the price you see! **POSTAGE & VAT ARE INCLUDED.** This advert constitutes an invitation to treat - not an offer.

Goods & Prices etc. subject to availability - trading conditions available upon request - please send S.A.E. for details

**WEST OF BRITAIN BUSINESS SERVICES DEPT 8/6,**  
**CAPEL TOBI, FFAIRFACH, LLANDEILO, DYFED. SA19 6PR**  
**Tel: (0558) 823782**

**Cheques/P.O.'s payable to "W.B.B.S." - PLEASE STATE YOUR NEEDS EXACTLY**  
**GOVT. DEPTS / LOCAL & EDUCATIONAL AUTHORITY ORDERS WELCOMED**



### 'Calling all User Groups ... !'

Treetops of Draycott, Derbyshire, is a hospice which offers 15 day places and 10 beds to the terminally ill. In order to open next year, however, the hospice needs to raise £1,250,000.

On the 16th July, therefore, the hospice, backed by Radio Trent, has been offered free use of Donington Park racetrack, where a sponsored walk, cycle ride and cycle race (featuring international riders) will be taking place.

Sue Basker, member of the Executive Committee, has prepared a database for her PCW 9512 to register the 7,000 walkers and 3000-odd cyclists whom she expects to take part.

'The main stumbling-block is that we can only muster two 9512s from our members, and we need at least 15 to 20 to call on. The computers will be used under cover and will all be fully insured.'

Sue would very much like to hear from any readers or user groups who would be willing to go along to Donington racetrack, with their machines, to act as registration marshalls. Says Sue: 'It would be great for a user group to find out how to use Masterfile 8000 and help us at the same time. The day promises to be very enjoyable in any case, and family and friends could come and take part in the events as well – the more the merrier!'

If you're interested in helping a good cause, contact Sue Basker, through Ellen Brown at Treetops, on 0602 391748 or at her home on 03317 2358. Be sure to leave your full name, address and telephone number if you can't speak to her in person.

### Light Pen Fantastic

Composit Software, creators of SketchPad, a PCW drawing package, are in the midst of Beta testing some new software for musicians and composers.

Beta testing a product entails sending it out to a few selected individuals who then report back on their findings. In the case of The Composer's Pen, the working title for the program, it was sent to various composers and music schools. Composit have received some very encouraging feed-back.

According to Composit the program is a note processor. Essentially it will allow composers – remembering that both Beethoven and Tony Hatch are considered to be composers – to get raw ideas onto the PCW and then manipulate this information. This will take the drudgery out of what should be a creative act.

At the moment the products available for this task are few, far between and fabulously expensive; at least by PCW standards (and are all on other machines).

Composit claim that their product will be able to meet the

current competition with features such as full control of note and stave spacing, up to 99 lines of music, up to 20 note chords in any line, text and music symbols and complex tuplets (you know, where you play a group of five notes in the same space as you would normally play three – that kind of thing), and all for under £70.

Input is achieved via the standard PCW keyboard. This is reconfigured to provide a cluster of keys which allow the seven whole notes to lie under the left hand while notational symbols such as sharps, flats and demi-semi-quaver-crotchets lie under the right.

This would seem to be an exciting addition to the PCW software collection and one which we shall be reviewing just as soon as possible.

Two versions are planned. The full implementation to cost £65 while the pocket (that is 'stripped down') version will retail for about £25.00. For further information the people to contact at Composit Software are A C Murray on 0952-586979 or Mike Baker on 021-456-1967.

Compose on the screen - print on the printer. The music processor arrives.

### Shouting in the Library

The Public Domain (see page 57 for more news on this subject) is a much underrated, misconstrued, fertile and cheap area of computing. As far as the PCW is concerned the Public Domain is burgeoning.

To add to its stock is the PCW-File public domain library. PCW-File began life (but has since unhappily passed on) as a user group and amassed various programs and utilities of interest to their PCW using members. While PCW File is dead, the software library lives on.

These programs range from games to text editing utilities and comms packages. The best thing about them is the fact that they are for PCW enthusiasts and they are cheap.

There are various ways of accessing this particular Public Domain library. If you would like a catalogue of the files on offer you should send either a 42p stamp and A4 envelope (if you want a printed copy) or a disc, and a stamped addressed padded bag to: Bob Ellis Public Domain Software Library, 'Rowan', 100 St Peters Close, Moreton-on-Lugg, Hereford, HR4 8DW.

There is no charge for the catalogue. If you wish to try out a sample, sight-unseen, you should send a £1.00 copying fee along with the disc and bag.

Finally, if you use any of the numerous desktop publishing packages available for the PCW you might like some new clip art. Digitized photographs of various subjects (from Gorbachev to a motorbike) are available. These cost £2.00 but your

## CLUB

This is a brand new section given over to PCW-related clubs. When we say PCW-related we mean just that. If you are a member of a user club or if you use your 8512 to run a horticultural society we would like to hear from you. We will be pleased to include information about up and coming meetings, interesting speakers, competitions - in fact

anything in which the PCW and its users have an involvement.

Send your Club News to Club News, 8000 Plus, 4 Queen Street, Bath, BA1 1EJ. The inclusion of black and white photographs or colour transparencies (we can only use these kinds of pictures) would be greatly appreciated.

### Jam at the M25

Last month's feature on clubs included a visit to the Middlesex PCW Computer User Group and an interview with group secretary Ken Ritchie. Ken travels in from Hertfordshire, a one and a half hour journey, in order to attend the weekly meetings. In the last few weeks his phone has been jammed with calls asking for more information on the the Group.

Here are the basics once again; there is no fee for the first meeting, as Ken says "...we like people to see whether or not we suit them...", after this there is an annual membership of £2 and you pay £1 for each meeting. These charges cover the cost of booking a hall and paying for electricity.

The group consists of users ranging in ability from experienced programmers to people who regard CP/M as an ancient curse. All standards are catered for and the underlying philosophy seems to be that it's more fun to learn together. For more information send an SAE (but no money) to Ken Ritchie at 5 Rib Vale, Hertford, S614 3LE.

### Shady practices

As you all know by now PCW File (Shouting in the Library) is no more, but one person at least seems to be speaking ill with the words of the dead. Like all organisations, PCW File had a list of subscribers which appears to have fallen into the hands of someone sending

out chain letters.

These letters apparently ask you to send five pounds to any one of the five addresses (four of which appear to be variations on a single theme) included on a list in the letter whereupon you will get a 'report' explaining how to make money. You are then invited to send the letter on to other people.

Get rich schemes generally do not work, otherwise none of us would need to get up in the morning. Chain letters generally are very unpleasant articles and such blatant appeals to greed are vulgar.

We would be interested to hear anything you might have to say on the matter.



contribution is going to the Myalgic Encephalomyelitis Association. Again you should send a disc and padded bag but this time to Dave Axford at, 18 Sunbrow, Haslemere, Surrey, GU27 2QP.

## C Port ? Yes We Do.

Some of our readers have been having problems getting through to C Port over the last few weeks. They have not closed down but have had trouble with the builders and a certain telecommunications company (yes, the one that used to be part of the Post Office). The former, according to Martyn Wilkinson at C Port, showed some "carelessness" in the refurbishment of the company's London office and cut off the phones. The latter have been causing some problems in reconnection.

Everything is okay now. C Port are in fact working on a new system for file transfers between the PCW and Cambridge Z88, a portable computer appreciated by many PCW users (see page 40).

For more information call C Port on (01) 376-5098).

## A Picture of Health

The PCW has been an established desktop publishing tool for some time now. With a new product from Rombo Productions the future looks, or rather scans, even better.

Rombo claim that their Vidi-PCW brings to the PCW owner the ability to actually grab a frame from videotape and convert it into clip art. Consequently you will not need to scan a photograph or photocopy of your favourite moment and lose quality. For example, you might have shots of Ian Botham at Lords or Cousin Agnes at Luton, you can use VIDI-PCW to capture the moment and then transfer it to your Stop Press, Desktop Publisher or Fleet Street Editor documents.

An interesting extension of this is that Vidi-PCW will also do the reverse. That is to say that it can transfer screens directly from the PCW onto videotape. This is achieved via an expansion port providing, among other things, Video Out. So, if you need to live up a spreadsheet presentation or you would like to see some time-lapse Mandelbrot this might be the machine for you.

As yet we have only seen sample output from the Vidi-PCW. We've not had the chance to review the equipment but as soon as we do we'll let you have full details.

Normally the Vidi-PCW costs £99.95 but for a short while readers of 8000 Plus can buy it for £79.95. Rombo Productions can be contacted by telephone on (0506) 414-631 or by Fax (0506) 414-634.

## PCW in Action. Take One!

If you've only got a few frames of film or the odd photograph which you feel should be immortalized on the PCW but don't want to spend £80 on a digitizer (see A Picture of Health) you might like to know about a service being offered by London based Belmar.

They will digitize any photograph or frame from a video tape that you care to send them. The main proviso is that all copyright details have been checked and dealt with by the customer.

When sending in videotape you must be sure to send a detailed guide as to whereabouts on the film you wish the frames to be taken. The company claims that it can get 29 full screen images onto a 720k disc and the quality of all 29 will be high.

If you need an illustration Belmar have a stock of digitized works to sell which might solve a

problem for you. You will need to send them some quite exact specifications in order to achieve the best results.

Belmar offer the various services on either 3" or 5.25" disc. Prices start from £10. For further information you should contact Belmar at PO Box 614, London E18 1NJ.

## VAT Imposed on the Press

The budget may not have put the price of cigarettes up but it has imposed VAT on Micronet. This is an electronic computer magazine which can be accessed via British Telecom's Prestel network. Micronet provides information, news, reviews and other items of general computer interest.

In effect it is a magazine which happens to be distributed electronically rather than on paper. All other journals, newspapers and magazines are zero rated for VAT making Micronet a test case. David Rosenbaum, the Micronet Product Manager says "We're taking a stand

because we don't believe that there should be tax on information and we don't believe there should be different rules for electronic media."

The reason given for this application of VAT on electronic media is that unlike paper based systems they do not supply information direct to the consumer. The inference is that the information gained from the likes of Prestel, Reuters and Micronet is used by business people only and that they relay it to the final consumer.

A protest against this levy has thus far gathered a petition of 3000 signatures from Micronet members. This has been presented to Nigel Lawson. All of the 'signatures' were collected over the Micronet system and came from residential consumers.

If you would like to know more about either Micronet or this issue you should contact them on (01) 278-3143. As an added incentive they are retaining their pre-Budget tariff of £79.95 until June 30th 1989. This price includes a free GEC Datachat modem.

## Prestel For Action

Four new magazines have come out over the Prestel system (see also VAT Imposed on Press). These are Newsday, Sportseye, Look! and Games City. Seven days a week, twenty four hours a day...it should be like flicking through a newspaper (until it gets hit by VAT that is). For more information call Helen Sullivan on (0442) 237-370.

## Beg Pardon

In last months Quickies we reviewed a Thesaurus from Three Inch Software. We also printed the wrong telephone number. The correct one should be; (01) 546-2754. Sorry, or should we say pardon, or apologies.

## High Quality Printing

If you'd like the use of a lazer printer in order to get the most from your work then Sigma press are the people to talk to. They will also transfer data from 3" disc onto 5.25" or 3.5" (IBM compatible) and vice versa. The person to contact is Graham Beech on (0506) 414-631.

## Trivia

IMC games and Cartographic Software are running a UK Trivia Treasure Hunt, which sounds like a fine idea. We were going to review a copy on your behalf as it looked like the kind of game to cause argument in the 8000 Plus office. Unhappily our review copy crashed rather heavily leaving us somewhere in Arbroath without a paddle. If you would like to find out more about the game phone IMC on (0604) 54814.

## Right Little Modem

Hi-Tec Supplies have a new modem on the market called the EC2400. It features MNP level 4 Error Correction (which is fine if the person you're calling has the same) and MNP level 5 data compression which is supposed to speed up the data transmission. It's built in the UK and costs £279(inc VAT). Call Hi-Tec on (0733) 52-440 for more details.



Yes, it looks like a modem and it is. Despite the fact that it looks like all the others it would appear to be good value for money.

Answer to Dingbyte: String variable



Definitely an improvement over the Gem tiger. Just one of the possibilities.



## BUY YOUR AMSTRAD FROM SBS AND GET A 12 MONTH SERVICE CONTRACT ABSOLUTELY FREE!

### AMSTRAD PCW RANGE

PCW8256 single drive, 256K memory, Monitor, keyboard, printer ..... £399.00  
PCW8512 double drive, 512K memory, monitor, keyboard, printer ..... £449.00  
PCW9512 single drive, 512K memory, monitor, keyboard, printer ..... £499.00

### WIRE PRINTER STANDS

Designed specifically for your Amstrad PCW printer, provides space for up to 500 sheets of continuous paper, keyboard storage or other items.



PCW8256/8512 Wire Printer Stand ..... £8.65



PCW9512 Wire Printer Stand ..... £14.95

### CLEARHEAD

3" Disk Drive Head Cleaning Kit ..... £5.95

### 3" CF2 DISKETTES

3" disks suitable for use with Amstrad CPC6128, PCW8256, PCW8512 (A and B drives), PCW9512 and all other computers with 3" disk drives. Our disks are certified 100% error free and come with a lifetime guarantee.

Amsoft CF2 3" Diskettes Price per 10 disks ..... £22.95

### 3" DISK STORAGE

For PCW8256/8512/9512 & CPC  
Small disk box (59273) holds 25 x 3" uncased disks (15 cased).  
Large disk box (59171) is lockable and holds 50 x 3" uncased disks (30 cased).



Small 3" Storage Box ..... £9.95  
Large 3" Storage Box ..... £15.83

### DIAL A DISK BOX

Dial-a-disk box for 3" diskettes. Turn levers and disks will pop up for ease of access. Stores 10.

Dial-a-disk box ..... £7.95

### PRINTER MAINTENANCE KIT

For PCW8256/8512/LQ3500

- Cleanprint cassette will
- Remove ink deposits
- Maintain print quality
- Protect and lubricate the printhead



Cleanprint Kit PCW8256/8512 ..... £14.74  
Refill Kit PCW8256/8512 ..... £7.50



## DATA TROLLEY FOR PCs & WORDPROCESSORS

Dimensions:  
Height 720mm  
Width 738mm  
Depth 584mm

Data Trolley ..... £69.00  
Delivery £7.50 per unit.

### COMPATIBLE RIBBONS

DMP2000/3000 Fabric Black ..... £2.69  
DMP4000 Fabric Black ..... £4.55  
LQ3500 Fabric Black ..... £4.98  
PCW8256 Carbon Black ..... £3.90  
PCW8256 Fabric Black ..... £3.39  
PCW9512 Carbon Black ..... £3.24  
PCW9512 Fabric Black ..... £3.15

### ORIGINAL RIBBONS

PCW9512 Carbon Black ..... £4.80  
PCW8256/8512/LQ3500 Fabric Black ..... £5.21  
PCW8256/8512/LQ3500 Carbon Black ..... £6.08  
DMP2000/3000 Fabric Black ..... £5.21

Coloured Fabric Ribbons available for PCW8256/8512/9512

# COMPUTER SBS SUPPLIES

### PRINTWHEEL STORAGE BOX

Six printwheels can be safely stored in their plastic sleeves inside our sturdy storage box for additional protection.

Printwheel Storage Box ..... £5.95



### PCW8512 PRINTWHEELS

Courier 10 ..... £5.37  
Prestige Pica 10 ..... £5.37  
Recta 10 ..... £5.37  
Orator 10 ..... £5.37  
Letter Gothic ..... £5.37  
Prestige Elite 12 ..... £5.37  
Script 12 ..... £5.37  
Mini Gothic 15 ..... £5.37  
Thesis PS ..... £5.37  
PCW9512 Printwheel Cleaning Kit ..... £6.95

### VDU FILTERS

Designed specially for the Amstrad PCW 8256/8512/PCW 9512.

Filter ..... £13.00



## LOCOSCRIPT FAMILY for PCW8256/8512 and PCW9512

LocoScript 2 ..... £21.70  
LocoScript 2 with LocoSpell ..... £30.35  
LocoMail ..... £26.04  
LocoSpell (for use with LocoScript 2) ..... £17.35  
LocoFont ..... £17.35  
LocoFile PCW8256/8512 ..... £26.04  
LocoFile PCW9512 ..... £26.04  
24 Pin Printer Drivers Disk ..... £21.70

### PCW TRAVELLING CASE



PCW8256/8512  
De Luxe Travelling Case ...  
..... £39.95

### COMPUTER TRAINING COURSES

Courses consist of two audio cassette tapes, software disk and user instructions.

Complete Introduction to PCW9512/LocoScript 2 ..... £29.95  
Complete Intro. to PCW8256/8512/LocoScript 1 ..... £29.95  
Complete Intro. to PCW8256/8512 LocoScript 2 ..... £29.95  
Complete Intro. to CP/M Computing on the PCW ..... £29.95  
SuperCalc 2 on the PCW ..... £29.95  
dBASE II on the PCW ..... £29.95

### SINGLE SHEET LOCATOR AND ALIGNER

#### MAXAFIT

Suitable for AMSTRAD  
PCW9512, DMP2000/3160  
DMP 4000, LQ3500/5000di  
and most other PC printers.



Maxafit .... £29.95

#### MARGIN MAKER

For PCW8256/8512 printers.



Margin Maker ..... £9.13

### PRINTER MUFFLER

At least 80% noise reduction  
Optional Stand for 80 column Hood provides storage for paper.



80 Col Hood ..... £69.00  
Stand for 80 Col Hood ..... £21.00

### MOUSE PAD

..... £4.95

### MOUSE HOUSE

..... £3.95

### EXTENSION CABLES

Printer & Power Cables PCW8256/8512 (1 metre per cable) ..... £16.04  
Printer Cable only PCW9512 (2 metres) ..... £13.00

### COPYHOLDER

New Universal Thingy copyholder with rotating pivot will fit to either the right or left hand side of your computer, WP, etc., with the fixing supplied.

Universal Thingy Copyholder ..... £6.99

### DUSTCOVER SETS

PCW 8256/8512 3 piece ..... £9.00  
PCW 9512 3 piece ..... £9.14  
DMP 4000 1 piece ..... £5.00  
DMP 2000/3000 1 piece ..... £4.25

### SURGE PROTECTORS

Safeguard your Equipment from power surges/spikes  
Plug ..... £14.22  
3 Way-Adaptor ..... £18.25  
4 Gang-Adaptor ..... £14.90

ALL PRICES EXCLUDE V.A.T. & DELIVERY E. & O.E.

## TO ORDER

JUST TOTAL YOUR  
PURCHASES AND  
ADD DELIVERY  
AND 15% VAT



### POST:-

Simply list your order, name and address, enclose a cheque or postal order (made payable to 'SBS Computer Supplies') or your credit details to the full address below.

### PHONE:-

Our Express Hotline on (0273) 423523 (10 lines, 24 hours) and order quoting credit card number, name, full postal address, daytime phone number and the dept. number below.

### DELIVERY:-

DELIVERY AND INSURANCE - UK MAINLAND ONLY

1. SUPPLIES order value up to : £20 = £1.50, £50 = £2.00, £100 = £2.50, £200+ = £3.50
2. COURIER delivery only for furniture, computer hardware, printer hoods £750 per unit.

OVERSEAS ORDERS WELCOME : please contact us for delivery information.

SBS COMPUTER SUPPLIES LTD. FREEPOST (BR 332) DEPT. 311, PORTSLADE, BRIGHTON BN41 1ZZ



# TIME FOR

There are many reasons why you might want to buy a new dot m

So, you're halfway through printing out your eighth novel and the printer that came with your PCW has finally died. As soon as you've finished panicking you have an important decision to take: is it better to have it repaired, or should you buy a new printer? The repair could take some time and prove relatively expensive and while buying a new alternative will be dearer still you can have it instantly and gain both speed and portability. The growing number of PCW owners taking the second option show that speed and freedom are powerful arguments.

And what about the 9512 owners? The arguments in favour of buying a budget dot matrix printer to add to your 9512 are so good it certainly isn't worth waiting for your daisy wheel to die before breaking out the chequebook.

**F**or the PCW owner there is no question of going more than a few days without a printer. Since those who make heavy use of their printers are inevitably going to reach the point where the original fails (in most cases simply wearing out) it's worth considering the best action to take when this happens.

Of course you could have the PCW printer repaired, and many do, but like all mechanical creatures the printer has a finite life. Once one part wears out the rest may not be far behind. Repairs are getting more expensive these days, and the delays in getting parts are becoming less of a joke.

Bearing these points in mind it can make a lot of sense to go for a standard budget dot matrix printer instead of a repair bill (there is one final advantage in that you will be able to use the new printer on any other computer).

With so many good reasons for buying a new printer we decided to check out five dot matrix printers in the sub £200 range. Each of these comes from a different, well known manufacturer and all are currently being made. While it is possible to buy discontinued models at even lower prices inevitably they will have less features and are generally no longer supported by the original manufacturer.

While not all five of these printers are available at less than £200 direct from the manufacturer all can be bought from various distributors at heavily discounted prices, so it pays to look around and compare advertisements.

## Pin number

A bit of background on dot matrix printers can help you make the right decision when you come to buy one. The first thing is to understand why they're called dot matrix (8000 series owners can skip this bit). Unlike a daisy wheel printer a dot matrix has to build its letters up from a series of dots. The print head of a nine pin dot matrix printer has nine tiny pins arranged vertically which are fired into the ribbon as the head moves across the paper. Since the pins

can be fired in any order, to produce any pattern, its relatively simple to alter the typestyle part way through a document, line or even in the middle of a word.

The pins can be fired in patterns that produce pictures or letters that take up more than one line. The same pins can produce a wide variety of type styles on a single machine. Because the pins can be fired very quickly dot matrix printers can be made to work at hundreds of characters per second (though the cheaper ones are naturally slower) and as all owners of 8256s and 8512s know, dot matrix printers are inherently reliable.

The difference between the dot matrix printer that comes with the PCW and those you can buy in the high street which suit any computer is that the PCW printer has no real electronics of its own and is driven directly from the PCW, which is why it can't be used on other computers.

Separate printers come with a wide range of abilities built in. They will have their own typestyles held in ROM and will obey a wide variety of commands. The Star LC10, for example, can be instructed to set margins, typestyles, pitch and so on, irrespective of what your word processor wants to do, or alternatively, to obey the control codes sent to it.

## In code

The subject of control codes can be a bit confusing. Most 9 pin dot matrix printers are of a type called *Epson compatible*, which simply means that they will obey the same Escape Codes (sequences that begin with the number 27) in the same way that an Epson printer will. This is known as a *de facto* standard (which usually means everyone except IBM adheres to it). It's always worth checking that the printer you intend to buy will obey Epson codes – it will save you a lot of trouble in the long run, if only because the PCW and all of the software written for it puts out Epson codes to the printer by default.

There are some tradeoffs if you buy a different printer for the PCW; LocoChar won't work with other printers and you lose the ability to do a screen dump with [EXTRA][PTR], something that LocoScript 2 has lost anyway. The only other real loss is that you won't be able to control it from the Printer Status Line (on most printers the same controls are built into a front panel for direct control). Apart from these using a new printer will be exactly the same as before.

The following five printers were all tested on our office PCWs, the prices are as advertised but excluding VAT. We've listed the RRP (Recommended Retail Price) but we've also had a look around to see just how low a price we could get. Most printers are discounted heavily by mail order companies but not usually by so much in high street stores. It certainly pays to have a good look round before



Star LC-10

## Flexible friends

When buying anything mail order use a charge card like Access or Visa and try to order from a member of MOPS, the Mail Order Protection Society. If there is any subsequent problem with the supplier it's the card company who have the argument with them and not you. Knowing you aren't taking such a risk is a great help when trying to get to sleep at night.



Brother M-1109



# A CHANGE

ix printer. Steve Patient considers five budget alternatives

you decide.

The speed of a printer is important, especially if you need to print large amounts of text. We did our own tests using a standard single page letter of two thousand characters, printed out in draft and NLQ and timed using a stopwatch. They bear little comparison with the manufacturers stated speeds, which is normal. Most manufacturers are somewhat economical with the truth and do rather unrealistic timing tests; like printing a single line of full stops! To get a realistic estimates is to print out the kind of text you intend to use the machine for.

## Star LC-10

This is a printer with curvaceous looks. Even the box it arrives in is attractive and comes complete with its own built in carrying handle. There's very little assembly required, clip on the ribbon cassette (styled like an electric typewriter), push on the roller knob and it's ready to go. The tractor feed is built in and there is a paper guide provided as standard.

Operation is from a touch sensitive front panel. Holding down various of these when the printer is turned on provides different modes of operation; for example it can run self tests or be instructed to ignore codes from the computer and accept instructions only from the front panel. The front panel gives you access to all three type styles plus italics, draft and NLQ.

The documentation is very complete, including a ring bound manual (with an index) listing everything you could ever want to know about the LC-10 and its operation: connector details, printer codes, front panel operation and dip switch settings. There is also a crib card for the front panel operations and a sticker to put on the machine with the same information if you want to.

In use the LC-10 performed flawlessly. Fitting continuous paper is simple and involved no more than clicking off the cover at the back, flipping up the guides over the sprockets and winding the paper through. The paper parking feature, which allows single sheet paper to be used at the same time, is operated from the front panel; press ON/OFF LINE, hold down the PRINT PITCH and press PAPER FEED (now you see the reason for the crib sheet, it isn't an intuitive process) and watch in amazement as the continuous paper is sucked back out of the way and the machine is ready to accept cut sheets. Pulling the bail bar forward restores the continuous paper to the correct Top of Page position. This facility also allows you to feed paper out, tear off the sheet and automatically reposition the paper in the printer without wastage.

The LC-10 printer is elegantly designed, takes up a surprisingly small amount of desk space and the built in typescripts are all clear and attractive. One of the more expensive machines we tested but very desirable.

## Brother M-1109

This machine was the smallest of those tested and will probably prove the cheapest to buy. It has some unusual 'features'; for example, there is no bail bar. The paper feeds in at the back, around the platen and close under the front

cover. This works but the paper isn't as firmly held as with a bail bar and there is some movement while the print head crosses the platen. In fact movement is quite noticeable with this printer, the whole thing twists quite alarmingly when picked up.

The M-1109 was rather slow and noisy in operation and the print proved noticeably dotty even in NLQ. The print styles such as bold and italics can't be selected from the front panel, in fact very little can, but as a consolation prize all the dip switches are accessible at the back and it does come with both a serial and parallel socket as standard.

The tractor feed comes in with the price but because it clips onto the top (a bit like the standard 8000 series printers) you can't use continuous and cut paper at the same time, however, swapping over isn't too difficult. As with all the printers the attempt was made to get it out of the box and up and running without looking at the manual, and it proved particularly easy with this machine.

The small size and clean lines of the M-1109 proved popular but once heard running (and rattling) enthusiasm dropped. It dropped still further when the finished result was examined. Probably not a machine you'd choose for correspondence but if you're primarily looking for something to print out your listings and hex dumps on then this could prove the very thing.

## Panasonic KX-P1081

This printer, in various incarnations, has been a favourite with the computer fraternity for some time, and deservedly so. It's simple to use, solidly built, can be bought at heavy discounts and is very reliable. However, it does look a little old fashioned by today's design standards and is quite large, certainly one of the bigger machines we tested.

One of the few caveats that could be applied to the KX-P1081 is that it doesn't have a proper bail bar. If you're using cut sheet paper it's necessary to physically tuck it under the tear bar. Until then, though, paperfeed is semi-automatic. If you mainly intend to use continuous paper then this printer is good, but again the tractor is of the pull type meaning wasted sheets as you try to get your last letter out.

You can't use cut sheet without removing the continuous paper, but it is extremely easy to fit and remove. With continuous paper fitted the lid can be kept in place which makes the printer quieter as well as giving it a smart appearance.

Selection of draft or NLQ is from a switch mounted at the left of the printer. The front panel on the other side provides the minimum ON/OFF Line, Line feed and Form feed. As usual, combinations of these buttons held down on power-up provide self test features and a Hex dump. There are no alternative typescripts.

The manual is clearly laid out and indexed, which is always helpful, and includes sample Basic routines for some of the more complex procedures like

## Devious devices

The built in 9512 Centronics port will only work properly if the original printer is still fitted. If you remove it the PCW may not recognise your new printer.

To redirect printer output to the 9512 Centronics port in CP/M you need the DEVICE utility. The command is:

**DEVICE LST:=PAR**

If you have a parallel/serial interface fitted (9512 and 8000 series) then the command is:

**DEVICE LST:=CEN**



Panasonic  
KX-P1081



## Citizen 180E

### Facing up to it

8256 and 8512 owners need an interface to attach a second printer. The original Amstrad CPS8256 interface is still available but tends to be a bit dear. It is, however, guaranteed to be totally compatible with the PCW. In fact the interface is a fairly straightforward piece of electronics and you are unlikely to have problems with those from third party manufacturers.

### Nine into twenty four

Clearly this sum doesn't work well. 24 pin printers have two rows of 12 pins offset slightly so that one row fills in the gaps the other leaves. When sending characters this allows the printer to work faster and produce a better defined character.

The problems come when trying to send graphic data to the printer. It works, but not well, and you tend to end up with stretched out images.

downloading user defined characters. You can't have a complete alternative character set, the maximum allowed is forty.

## Citizen 180E

An earlier version of this printer proved very popular due to heavy discounting, but it was due for an update. The 180E is a nice looking machine, almost as small as the Brother we tested but with a far more solid feel about it and can be bought with either serial or parallel interface

Without the tractor unit fitted (supplied as part of the package) the 180E can be used for cut sheet paper without ever lifting the lid; the

automatic paper loading works very well and is a professional feature now appearing on more and more budget printers.

The 180E allows selection of one of two alternative types as well as italic, draft, NLQ, emphasised, reduced, double height/width, and quadruple height and width all from the front panel, but since the only indication you get is a single flash of light each time a change is made you have to keep careful count.

As with most printers this one was ready to go and we were able to print out our two thousand character document and do our timing tests without using the manual. The 180E manual is very good, however, including not just details of the printer and character set but extensive instructions on designing and downloading your own characters and even sample Basic programs showing how it's done.

In use the draft printing proved particularly fast, perhaps too fast since it left a very poor impression on the paper despite having a new ribbon fitted. This wouldn't have mattered so much if the NLQ had been good,

unfortunately it wasn't all that hot either. NLQ text proved fairly slow to print and failed to produce a hardcopy of a quality we thought acceptable.

Perhaps if we hadn't had our hopes raised by the look, feel and features of the 180E the disappointment wouldn't have been so acute, but in the final analysis a printer just has to produce good printout, while better than the Brother M-1109 this printer didn't quite come up to the mark.

## Amstrad DMP 3250 di

Amstrad have adopted a rather eccentric design for this printer (which is the upgrade to their 3160). It has a virtually straight cut sheet paper path, with the paper coming in at the front and the print head pointing straight down.

Feeding paper in at the front makes the printer easy to use; the guides are built into the bottom of the tractor feeds and allow precise alignment, something that proved awkward on most of the other printers we tested.

Despite having a push type tractor feed the two kinds of paper cannot be used simultaneously, but it is easier to change from one to the other on this machine than on the others we tested (with the exception of the LC-10)

In use the DMP 3250 di proved rather slow and rattly, though the actual print quality is reasonable. What struck us most forcibly was the vast difference in stated and actual printing speed. All of the printers tested ran much more slowly with our test letter (2000 characters on one page of single line spaced text) than their stated speed claims but the Amstrad machine was so vastly out of line that we redid the test; and it was exactly the same.

Amstrad claim 160 cps in draft; we found an actual speed of 66 cps. In NLQ mode the printer is only fractionally faster than the built in PCW printer and lacks its flexibility.

Even as an entry level printer for programmers this printer would not be a good choice. It just isn't good enough to give a piece of equipment futuristic styling and keep the stone age performance.



**Amstrad  
DMP 3250 di**

## Daisy can't

The only real drawbacks with the 9512 package relate to the limitations of the daisy wheel printer. Because of the way they work daisy wheel printers are always going to be noisy, relatively slow and will always cause you problems if you want to change text styles. And as for graphics, they're non starters.

Recognising these inherent limitations Amstrad made provision for attaching a second printer, and all 9512s come with a centronics port built in (which they call a parallel port in order to avoid confusion with the Centronics port on the interface. In fact they perform the same function).

The wish to use a variety of print styles, to do fast draft printouts and to produce graphics, means that 9512 owners are actually more likely to buy a second printer than 8000 series owners, and it will always be a dot matrix. If you aim to do graphics (the kind of thing a desktop publishing package produces for example) then you should buy a nine pin dot matrix of the kind discussed here since no PCW graphics package currently support the 24 pin printer.

## Final thoughts

What should you look for in a printer? Obviously, there is an element of personal preference involved, but some features are worth having. Auto loading of cut sheet paper is convenient, as is being able to control as much as possible from the front panel. This allows you to print the same document in a variety of ways without altering the file.

If you need tractor feed then a push tractor saves paper and paper parking saves having to remove the continuous paper if you need to do the occasional letter. A proper bail bar works better than the alternatives and is worth looking for. Finally, and most important, check that you like the printout - you'll be seeing a lot of it.

The standard of documentation with all the printers we tested was extremely high, far more so than any other home computer equipment you're likely to come across. In fact when your printer has a better manual (indexed even) than your software you might be forgiven for wondering where the computer industry's priorities lie.

None of the printers came with a 36 way to 36 way centronics cable, and one of these will set you back anywhere from five pounds (for a ribbon cable with plastic connectors) to about fifteen pounds (for a shielded multicore cable with metal ends). Most mail order companies will throw in a ribbon cable if asked.

Which one would we go for? Thought you'd never ask. Of those we tested the pick of the bunch was definitely the Star LC-10, and if that seems too expensive our second choice would be the Panasonic KX-P1081. The Brother printer is one to avoid however much it's being discounted unless your only interest is in listings.



## RIBBONS

### • THE WIDEST RANGE •

- All inc VAT & post free -

#### PCW 8256/8512

|                                | 1 off | 2 off |
|--------------------------------|-------|-------|
| Black High Quality fabric..... | £3.95 | £7.45 |
| Black ExtraLife.....           | £4.95 | £8.95 |
| Colours*.....                  | £4.95 | £8.95 |
| *Red, Blue, Brown, Green       |       |       |
| Multistrike Films.....         | £3.95 | £7.45 |

Mix 'n' Match: Any 5 @ £3.95 for £16.95  
Any 5 @ £4.95 for £19.95

#### PCW 9512

|                                 | 1 off | 2 off |
|---------------------------------|-------|-------|
| Multistrike Films.....          | £3.95 | £7.45 |
| Fabric Black.....               | £3.95 | £7.45 |
| Fabric Black ExtraLife.....     | £4.95 | £8.95 |
| Fabric Colours (Red, Blue)..... | £4.95 | £8.95 |

Lifetimes: M/Strike 100 000 characters  
Fabrics 400 000 characters  
ExtraLife 750 000 characters  
Fabrics offer longer life & re-inkable

Mix 'n' Match: Any 5 @ £3.95 for £16.95  
Any 5 @ £4.95 for £19.95

### WHY PAY MORE?

#### AMSOFT MAXELL

£21.95 for 10

£11.50 for 5

inc VAT & postage

\* Disk supplies can be problematical - please enquire!

### "10-in-a-box"

Smart, lockable disk bank with 10  
Amsoft disks...

£29.95

inc VAT & post



(Box holds 20+ disks)

\*Box on its own £9.95 incl.

## PCW 9512 DAISY-WHEELS

|              |                   |
|--------------|-------------------|
| Courier 10   | Prestige Pica 10  |
| Gothic 10/12 | Prestige Elite 12 |
| Recta 10     | Orator 10         |
| Script 12    | Mini Gothic 15    |

£6.95 ea

inc VAT & post

# SOFTWARE

ALL SOFTWARE PRICES INCLUDE VAT & POST

| W/Processing          |        |        | Databases                        |        |       |
|-----------------------|--------|--------|----------------------------------|--------|-------|
| Product               | RRP    | Ours   | Product                          | RRP    | Ours  |
| Locofile 2*           | 29.95  | 28.95  | AtLast Plus                      | 39.95  | 34.95 |
| Locomail 2            | 29.95  | 28.95  | First Base                       | 29.95  | 27.95 |
| Locoscript 2          | 24.95  | 24.95  | Cornix Card Index*               | 34.95  | 29.95 |
| Locospell 2           | 19.95  | 19.95  | Masterfile 8000                  | 49.95  | 36.95 |
| Locoscript 2 + LSpell | 34.90  | 32.95  | Sage Retrieve                    | 70.15  | 49.95 |
| Protext               | 59.95  | 44.95  | Spreadsheets                     |        |       |
| Pocket Protext        | 39.95  | 28.95  | Cracker 2                        | 49.00  | 36.95 |
| Pocket Wordstar       | 19.99  | 17.95  | First Calc                       | 29.95  | 27.95 |
| Supertype 2           | 24.95  | 19.95  | Supercalc                        | 49.95  | 39.95 |
| Tasword               | 24.95  | 19.95  | Communications                   |        |       |
| Tas-Print             | 14.95  | 11.95  | Dialup                           | 89.95  | 69.95 |
| Tas-Spell             | 16.50  | 12.95  | Sage Chit Chat                   | 100.05 | 74.95 |
| Desk Top Publishing   |        |        | Utilities/General                |        |       |
| Stop Press            | 49.99  | 39.95  | Arnor Maxam 2                    | 49.95  | 39.95 |
| SPress + Mouse        | 89.99  | 79.95  | Arnor C                          | 49.95  | 39.95 |
| Desk Top Publisher    | 29.95  | 22.95  | Cornix Job Estimator             | 79.90  | 69.95 |
| DTP + Mouse           | 79.95  | 64.95  | Cornix Product Costing           | 79.90  | 69.95 |
| Fleet St Editor       | 49.95  | 39.95  | Kempston Daatafax                | 39.95  | 32.95 |
| Accounts              |        |        | Daatafax Gift Pax                | 49.95  | 41.95 |
| Digitat Business Cont | 99.95  | 79.95  | Knife +                          | 19.95  | 18.95 |
| Digitat Tax Planner   | 24.90  | 21.95  | Mini Office Professional         | 29.95  | 21.95 |
| Cornix Simple A/Cs II | 99.95  | 79.95  | Plan It                          | 19.95  | 16.95 |
| MAP Integ Accounts    | 143.75 | 109.95 | Stockmarket                      | 39.95  | 34.95 |
| MAP Nominal Led       | 69.00  | 49.95  | Typeite                          | 17.95  | 16.95 |
| MAP Payroll           | 69.00  | 49.95  | Leisure                          |        |       |
| MAP Purchase Led      | 69.00  | 49.95  | Colossus Bridge                  | 15.95  | 12.95 |
| MAP Sales Led         | 69.00  | 49.95  | Colossus Chess                   | 15.95  | 12.95 |
| MAP Stock Control     | 69.00  | 49.95  | Matchday 2                       | 14.95  | 11.95 |
| Money Manager +       | 39.95  | 29.95  | Mindfinder                       | 24.99  | 18.95 |
| Sage Pop Accounts     | 99.99  | 74.95  | Scrabble                         | 19.95  | 16.95 |
| Sage Accounts Plus    | 149.50 | 109.95 | Time And Magik                   | 14.95  | 12.95 |
| Sage Pop Payroll      | 70.15  | 54.95  | * Please state 8256/8512 or 9512 |        |       |
| Sage Popular Invoice  | 70.15  | 54.95  |                                  |        |       |

• ALL PRICES INCLUDE VAT! •

## PAPER

### LOOK AT OUR RANGE!

All prices per thousand sheets incl. VAT

|                              |        |
|------------------------------|--------|
| 11/9.5 60gsm Listing         | £6.45  |
| 11/9.5 70gsm Microperf       | £7.95  |
| 11/9.5 85gsm Letter Qual     | £9.95  |
| A4 Size 70gsm Microperf      | £9.70  |
| A4 Size 85gsm Letter Qual    | £10.95 |
| + £2.50 P&P (Any size order) |        |

### A5 Size Letter Quality Paper

A4-folded-in-half Size  
Upright (Portrait) Orientation  
Microperf all edges for letter-writing  
per 1000  
+ P&P  
**£13.90**

## Address Labels

3.5/1.5, 1- or 2-across £3.75  
+ £2.50 P&P (Any size order)

## DUST COVERS

### PROTECT YOUR EQUIPMENT!

Smart, 3-piece machine-washable dust cover  
sets keep your PCW clean and dust-free,  
protect from spills etc

PCW 8256/8512 set £11.95

PCW 9512 set £13.95

### FREE CATALOGUE

• Education requisitions welcomed! •

At last - a unique  
new ink spray that  
restores ribbons in  
seconds

# SAVE £££s ON RIBBONS

- Quick & Convenient.
- Restores & Re-Inks faded ribbons in seconds!
- Refreshed ribbon lubricates print head for smoother running & enhanced printer life.
- Use on any fabric ribbon...
- again and again!
- Pays for itself the first two times you use it.



ONLY  
**£8.95**  
inc VAT & post

Cheques/POs (no stamp needed)

**CASPELL COMPUTER SERVICES**

Dept 8k, FREEPOST, Poole Dorset BH15 1BR

Tel: 0202 666155 or 0202 35650 (24-hr)

TRADE ENQUIRES & LOCAL AUTHORITY ORDERS WELCOMED  
Caspell Computers, 43 Emerson Rd., Poole, Dorset BH15 1GS





# SK MARKETING



COMPUTER SUPPLIES



**LONDON'S LARGEST  
REGISTERED  
AMSTRAD DEALER**

10 Fulham Broadway, London SW6 1AA. Telephone 01 381 6618/9 (24hours)

**FAX: 01-381 0528**

Personal callers welcome  
Opposite Fulham Broadway  
Tube Station - District Line

**COMPARE OUR PRICES BEFORE ORDERING FOR  
UNBEATABLE OFFERS!!**  
Export, Government and Educational orders welcome

All prices Excl. VAT  
Carriage Free/Mail Order  
Immediate Despatch

## AMSTRAD PCW RANGE

|                    |         |
|--------------------|---------|
| Amstrad 8256 ..... | £320.00 |
| Amstrad 8512 ..... | £405.00 |
| Amstrad 9512 ..... | £399.00 |

|                                    |         |
|------------------------------------|---------|
| Amstrad RS232/Cent Interface ..... | £48.00  |
| 8256 Memory Upgrade 8512 .....     | P.O.A   |
| FD4-2nd Drive for 8256/9512 .....  | £118.00 |

## WORDPROCESSING

|                                      |        |
|--------------------------------------|--------|
| Tasword 8000 .....                   | £16.00 |
| Tasprint 8000 .....                  | £10.00 |
| Taspell 8000 .....                   | £12.50 |
| Tas Sim .....                        | £20.00 |
| Protext .....                        | £35.00 |
| Pocket Protext .....                 | £26.00 |
| New World II .....                   | £44.00 |
| Locoscript 2 .....                   | £21.00 |
| Locoscript 2 with Locospell 2 .....  | £28.00 |
| Locospell 1 (for Locoscript 1) ..... | £26.00 |
| Locospell 2 .....                    | £17.00 |
| Locomail 1 and 2 .....               | £26.00 |
| Locofont .....                       | £18.00 |
| Locofont II .....                    | £14.00 |
| Locofile .....                       | £26.00 |

## SPREADSHEETS

|                          |        |
|--------------------------|--------|
| Amsoft Supercalc 2 ..... | £40.00 |
| Cracker II Turbo .....   | £37.00 |

## DATABASES

|                                       |        |
|---------------------------------------|--------|
| Cambase II .....                      | £30.00 |
| Sage Retrieve .....                   | £41.00 |
| Sage Magic Flier .....                | £42.00 |
| Datastore (Digita) (Version II) ..... | £28.00 |
| Supertype (Digita) (Version II) ..... | £17.00 |
| Database Manager (At Last) .....      | £17.50 |
| Masterfile 8000 .....                 | £32.00 |
| dBase II .....                        | £65.00 |
| Database Manager Plus .....           | £25.00 |

**Mini Office Professional PLUS.....£29.00**  
(includes: Universal Spellchecker, Thesaurus)  
Spell Checker/Thesaurus only.....£14.50

## DESKTOP PUBLISHING

|  |        |
|--|--------|
| Fleet Street Editor Plus .....                       | £39.00 |
| Electric Studio Newsdesk International .....         | £33.50 |
| The Database Publisher (Software) .....              | £20.00 |
| Database Desktop Publisher<br>(with AMX mouse) ..... | £55.00 |
| Lightpen with Newdesk .....                          | £49.00 |
| Stop Press .....                                     | £30.00 |
| Stop Press + AMX Mouse .....                         | £57.00 |
| AMX Mouse Package (with Desktop) .....               | £48.00 |

## GRAPHICS

|                                       |        |
|---------------------------------------|--------|
| Dr Draw .....                         | £32.00 |
| Dr Graph .....                        | £32.00 |
| Electric Studio Video Digitiser ..... | £80.00 |

## ACCOUNTS

|                                  |        |
|----------------------------------|--------|
| Sage Popular Accounts .....      | £58.00 |
| Sage Popular Accounts Plus ..... | £90.00 |
| Sage Popular Invoicing .....     | £41.00 |
| Sage Popular Payroll .....       | £41.00 |
| Map Integrated Accounts .....    | £90.00 |
| Map Payroll .....                | £36.00 |
| Comsoft Stock Control .....      | £36.00 |
| Money Manager Plus .....         | £25.00 |

## 3" CF2 DISCS FOR AMSTRAD

**SKM  
SCOOP**

|          |        |
|----------|--------|
| 10 ..... | £18.00 |
| 20 ..... | £35.00 |

**BLANK CF2**  
Double Sided/Single Density

## ACOUSTIC HOOD FOR YOUR 9512



**SKM'S most economic solution  
to noisy printers**

- Up to 90% noise reduction
- See through lid keeps noise in and dust out

**Hood and Stand £95.00 only**

## SKM SPECIALS

|   |        |
|---|--------|
| PCW Dust Covers (3 piece inc) .....     | £9.00  |
| 3" Drive Cleaning Kit .....             | £9.50  |
| Margin Maker .....                      | £8.75  |
| 8256/8512 Printer Maintenance Kit ..... | £16.00 |



## COPYHOLDER

Adjustable ● Deskclamping  
Convenient ● Versatile

**ONLY £14.95**

## DOT MATRIX PRINTERS

**Panasonic KX P1124**  
The latest 24 pin Panasonic printer .....£289.00

|                        |         |
|------------------------|---------|
| Star LC10 .....        | £180.00 |
| Star LC10 Colour ..... | £215.00 |
| Star LC24 10 .....     | £289.00 |
| Star NB-24 10 .....    | £469.00 |
| Star NB-24 15 .....    | £545.00 |
| Star NB15 .....        | £695.00 |
| Amstrad LQ5000 .....   | £360.00 |
| Amstrad DMP4000 .....  | £265.00 |
| Amstrad LQ3500 .....   | £275.00 |
| Amstrad DMP3250 .....  | £165.00 |
| Epson LX800 .....      | £175.00 |
| Epson EX1000 .....     | £555.00 |
| Epson FX850 .....      | £305.00 |
| Epson EX1050 .....     | £399.00 |
| Epson LQ500 .....      | £269.00 |
| Epson LQ850 .....      | £420.00 |
| Epson LQ1050 .....     | £565.00 |

## PCW RIBBONS

| PRINTER                    | QTY<br>2+ | QTY<br>5+ | QTY<br>10+ |
|----------------------------|-----------|-----------|------------|
| <b>AMSTRAD</b>             |           |           |            |
| PCW 8256/8512 Nylon .....  | 4.30      | 3.00      | 3.50       |
| PCW 8256/8512 Carbon ..... | 4.75      | 4.50      | 4.00       |
| PCW 8256/8512 Colour ..... | 5.00      | 4.75      | 4.50       |
| PCW 9512 Nylon .....       | 3.50      | 3.30      | 3.00       |
| PCW 9512 Carbon .....      | 4.75      | 4.50      | 4.00       |

## EDUCATIONAL

|                                       |        |
|---------------------------------------|--------|
| Magic Maths (Age 4 - 8) .....         | £19.00 |
| Maths Mania (Age 8 - 12) .....        | £19.00 |
| Better Maths (Age 12 - 16) .....      | £19.00 |
| Better Spelling (Age 9 - Adult) ..... | £19.00 |
| Biology I (Age 12 - 16) .....         | £19.00 |

Stockmarket .....

|                    |        |
|--------------------|--------|
| Master Scan .....  | £49.00 |
| Master Paint ..... | £13.00 |



**MasterScan  
and MasterPaint  
£55.00**

## GENERAL & UTILITIES

|                                      |        |
|--------------------------------------|--------|
| Mass Easy Labeller .....             | £23.00 |
| Rotate .....                         | £17.00 |
| Plan it .....                        | £18.00 |
| Digital Pascal/MT+ .....             | £34.00 |
| Digital C Basic Compiler .....       | £34.00 |
| lankey Crash Typing .....            | £16.50 |
| lankey Two Fingers .....             | £16.50 |
| Prospell .....                       | £20.00 |
| Arnor C .....                        | £38.00 |
| Arnor Maxam .....                    | £42.00 |
| Personal Tax Planner by Digita ..... | £20.00 |
| Business Controller by Digita .....  | £65.00 |

## LEISURE SOFTWARE

|                           |        |
|---------------------------|--------|
| Cyrus Chess .....         | £12.00 |
| Colossus 4 Chess .....    | £14.00 |
| Batman .....              | £11.00 |
| Tomahawk .....            | £13.00 |
| Scrabble .....            | £13.00 |
| The Pawn .....            | £17.00 |
| Trivial Pursuits .....    | £14.00 |
| Head Over Heels .....     | £11.00 |
| Ace .....                 | £14.00 |
| Match Day II .....        | £12.00 |
| Tetris .....              | £14.00 |
| Clock Chess .....         | £14.00 |
| Steve Davis Snooker ..... | £11.00 |
| Classic Games 4 .....     | £14.00 |

## BOOKS (no VAT payable)

|   |        |
|---|--------|
| Mallard Basic By Amstrad .....                | £9.95  |
| Programming PCW By Ian Sinclair .....         | £7.95  |
| Step by Step Guide to Locoscript .....        | £4.95  |
| All In One Mini Office Professional .....     | £11.50 |
| Desktop Publishing with the Amstrad PCW ..... | £9.50  |
| Locoscript 2 by Ian Sinclair .....            | £9.95  |



**ALL PRICES EXCLUDE VAT  
CARRIAGE FREE!!**

All prices subject to change without notice.  
All goods subject to availability

Export, Government and Educational orders welcome

**SALES HOTLINE**  
**01 - 381 - 6618**

**PERSONAL CALLERS WELCOME 9.30 - 5.30**

**24 HOURS  
ANSWERPHONE  
FOR CREDIT  
CARD ORDERS**

10 Fulham Broadway, London SW6 1AA  
TEL: 01-381-6618/9 FAX: 01-381-0528



# PRINTING HEAD TO HEAD

## FEATURE

| PRINTER                        | STAR<br>LC-10                            | PANASONIC<br>KX-P1081 | CITIZEN<br>180E | BROTHER<br>M-1109 | AMSTRAD<br>DMP 3250 di | PCW            |
|--------------------------------|--|-----------------------|-----------------|-------------------|------------------------|----------------|
| TRACTOR                        | PUSH                                     | PULL                  | PULL            | PULL              | PUSH                   | PULL           |
| NO. OF<br>TYPESTYLES           | 3  | 1                     | 2               | 1                 | 1                      | CP/M<br>1      |
| AUTO PAPER<br>PARK             | YES                                      | NO                    | NO              | NO                | NO                     | NO             |
| FRONT PANEL<br>CONTROL         | YES                                      | YES                   | YES             | YES               | YES                    | FROM<br>SCREEN |
| EPSON<br>COMPATIBLE            | YES                                      | YES                   | YES             | YES               | YES                    | YES            |
| APPROX COST<br>OF RIBBON       | £3.90                                    | £3.95                 | £3.00           | £3.10             | £2.50                  | £3.90          |
| INTERNATIONAL<br>CHARACTER SET | YES                                      | YES                   | YES             | YES               | YES                    | YES            |
| DOWNLOAD<br>CHARACTER          | YES                                      | YES                   | YES             | NO                | YES                    | NO             |
| MAINS PLUG<br>FITTED           | YES                                      | YES                   | YES             | NO                | NO                     | N/A            |
| IBM CHARAC-<br>TER SET         | YES                                      | YES                   | YES             | YES               | YES                    | NO             |
| SERIAL PORT<br>AVAILABLE       | YES                                      | YES                   | YES             | BOTH<br>SUPPLIED  | BOTH<br>SUPPLIED       | N/A            |
| ITALICS                        | YES                                      | YES                   | YES             | YES               | YES                    | YES            |
| LARGE<br>CHARACTERS            | 1H x 2W<br>2H x 1W<br>2H x 2W<br>4H x 4W | 1H x 2W               | 1H x 2W         | 1H x 2W           | 1H x 2W                | 1H x 2W        |
| AUTO CUT<br>SHEET LOAD         | YES                                      | NOT QUITE             | YES             | NO                | NO                     | YES            |
| RRP                            | £259                                     | £219                  | £299            | £195              | £199                   | N/A            |
| LOWEST<br>PRICE FOUND          | £185                                     | £140                  | £149            | £128              | £165                   | N/A            |
| DRAFT CPS                      | 74                                       | 86                    | 111             | 40                | 66                     | 42             |
| NLQ CPS                        | 21                                       | 23                    | 23              | 15                | 13                     | 12             |
| TELEPHONE                      | 01 840 1800                              | 0753 73181            | 0895 72621      | 061 330 6531      | 0277 228888            | N/A            |



# ADVANTAGE

- PRICES INCLUDE VAT & FIRST CLASS POSTAGE
- YOUR ORDER WILL BE PROCESSED WITHIN 24 HOURS
- WE GIVE A REFUND IF YOU ARE NOT SATISFIED

## PUBLIC SOFTWARE

The following discs contain tried and tested software from the public domain, tailored and installed for PCW computers using CP/M Plus. Each disc has MENU selection and sorted directory utilities, plus documentation.

### WORD-SPREAD-BASES ONLY £6.00 PER DISC

1. **VDE TEXT EDITOR** Easy to use full screen ASCII editor with automatic word-wrap, page breaks, printer control - ideal for compiler source code.
2. **SPREADSHEET** Ideal for home accounts and small business users. Easy to use. Good documentation.
3. **DBQ DATABASE** A relational database for storing simple data and producing reports and forms letters. Free format query language with macros and commands. Features on-line help. ALSO: Inventory Database.

### HOME AND BUSINESS ONLY £6.00 PER DISC

1. **PCW DESKMASTER** Appointments Calendar, Calculator Memo-pad, Cardfile Database, Label printer, Home Accounts, Mortgage Calculator, Weather Forecaster.
2. **PCW GRAPHICS** Useful Drawing Program, Screen Font Designer, Ready-to-use Fonts, Biomorph - a fascinating graphic demo of natural selection.
3. **COMMUNICATIONS** Now featuring Viewdata, Prestel & Terminal Emulation Plus UKModem7, Kermit & MEX.
4. **FIXED ASSETS LOG** Record up to 350 items and their value. For home inventory, insurance, stocktaking clerk. Forms management and sort routine.
5. **VIDEO CLERK** Track your video collection. This database system features 4 sort options and forms management plus extensive documentation.
6. **STD CODES** in NUMERIC order with exchange names.

### USEFUL UTILITIES ONLY £6.00 PER DISC

1. **COMPLEAT UTILITIES** The famous NSWEEP disc manager, Superzap sector/file editor, Unerase, DISCKITA for 178k CF2 format, 51/4" second drive, Screen dump etc.
2. **TEXT PROCESSING UTILITIES** Sideways prints text (eg spreadsheet) on its side, Alphabetic Sort, Word Count, WSClean convert WP file to ASCII, Simple Spelling Checker, Score Card Generator, Banner printers, Typewriter Emulator.
3. **DISC ORGANISATION** Catalogue your disc collection and produce a printed index, File Finder, Archive program, Squeeze and Unsqueeze - save disc space.

### ENTERTAINMENT ONLY £6.00 PER DISC

1. **GAMES COMPENDIUM** Pacman, Snake Game, Polish Pong, Chess, Othello, Mastermind, Spellit, Awari, Life, Golf, Maze, Biorhythms, Word Search Puzzle Maker, Tic-Tac-Toe - all written in machine code.
2. **ADVENTURES** The famous Colossal Cave Adventure plus Bestiary + Return To Arg.
3. **AMUSEMENTS & DIVERSIONS** 29 games for Mallard BASIC, Startrek, Whichword, Lander, 3D Tic-Tac-Toe, Merchant, Othello, Hangman, Baseball, Civil War, Maze, American Football, Nim, Horse Races, Blackjack Spies Crazy-8.

### PROGRAMMING ONLY £6.00 PER DISC

1. **THE Z80 PROGRAMMER** Z80 Assembler/Disassembler, Z80 Debugger, Z80 Library, Z80 - 8080 translators.
2. **THE SMALL C PROGRAMMER** Includes source code. Produces executable machine code programs.
3. **C TOOLBOX** See how other programmers do it with this useful set of C Source code programs. Disc includes the executable programs.
4. **PROLOG-80** New Artificial Language Interpreter with comprehensive manual.
5. **JRT PASCAL** Full Pascal compiler with comprehensive documentation. 2 DISC SET

### THE NEW GAMES COLLECTION £14.95

- **TRIVIA QUIZ** A multi-choice game with graphics and sound, competitive scoring and plenty of questions. Gameplay is easy to understand and each round is short enough to maintain interest. "Guaranteed completely trivial" - 8000 Plus.
- **PCW - Draughts** - well presented version of board game.
- **PUZZLE** A unique computer version of the fascinating sliding picture puzzle game - with several pictures PLUS the option to use your own.
- These three games, specially written for the PCW, are available on one disc from Advantage for only £14.95

### BOURNES EDUCATIONAL SOFTWARE £13.95 PER DISC

Choose from World Wise, Timeman Two, Happy Writing and Animal Vegetable Mineral "Education and FUN too!"

### SCHOOL SOFTWARE £13.95 PER DISC

Magic Maths, Maths Mania, Better Spelling, Better Maths, Chemistry, Biology. "Highly Recommended"

We stock a wide range of commercial products for the PCW - please call to discuss your requirements.

### HIGH LEVEL LANGUAGES

- MIX C COMPILER** .....£33.95  
Hundreds of satisfied users agree that this is the best floating point C compiler for the PCW. The package includes a comprehensive manual and tutorial.
- MIX SPLIT SCREEN TEXT EDITOR** .....£19.95  
Wordstar - similar functions for editing source code
- MIX ASM UTILITY** for integrating MASM80 .....£10.95
- MIX TUTORIAL EXAMPLES** Save your typing! .....£5.95
- MIX GRAPHICS LIBRARY** with full source code .....£10.95
- "THE WORKS"** including all the above items .....£59.95

**NEVADA COBOL** One step compile & run. Fast commercial business programming on your PCW. With manual...£33.95

**NEVADA PASCAL** Sequential/ indexed file I/O One step compile & run with trace style debugging and manual.  
● SPECIAL OFFER - WHILE STOCKS LAST - £15.95

**NEVADA FORTRAN ANSI X3.9-1966** Fortran IV Generates object code modules - just compile & run. With Manual  
● SPECIAL OFFER - WHILE STOCKS LAST - £15.95

- HISOFT C Compiler** with graphics library .....£44.95
- HISOFT PASCAL 80** Extensive implementation .....£44.95
- HISOFT FORTH** with GSX graphics .....£19.95
- FTL MODULA 2** A powerful new language .....£49.95
- FTL Advanced Programmers Toolkit** .....£34.95
- HISOFT DEVPAK V2** Assembly language tool .....£44.95

**HISOFT KNIFE PLUS** Disc Editor & File Recovery ...£19.95  
Serial Interface & Parallel Printer Port Unit .....£49.95  
**LETAFont** Screen and Printer font designer .....£9.95

# ADVANTAGE

● COMPUTERS ● SOFTWARE ● TRAINING ● SUPPORT ●



We accept Sterling cheques, Eurocheques, Postal Orders, Access and Visa Non-EC countries please add £3 per order

ADVANTAGE - by post - 56 BATH ROAD CHELTENHAM GL53 7HH  
- by telephone - 0242 224340 or 0242 224848

COME AND VISIT OUR NEW SHOWROOM

# MONEY MANAGER PLUS

£39.95

(incl. VAT)

Amstrad PCW  
8256 8512 9512

Easy to use Financial Management Software

Over 16,000 users!

£39.95

(incl. VAT)

Amstrad PC PPC  
IBM PC etc.

Small Businesses  
Company Departments  
Expense Accounts

Doctors  
Dentists  
Lawyers

Professionals  
Tradesmen  
Home Accounts

Writers  
Farmers  
Colleges

Clubs  
Charities  
Etc. etc!

**MONEY MANAGER PLUS** is an easy to use yet powerful accounting system. It will enable you to record and analyse all your financial transactions, so that you know exactly where you stand and can make sensible and informed financial decisions. Check bank statements, monitor cash flow, analyse sources of income and expenditure, make budget forecasts, prepare financial statements. Keep one step ahead of your bank manager, convince tax or VAT inspectors, avoid nasty surprises!

**MONEY MANAGER PLUS** is very much easier and faster to use than ordinary systems. It has several reporting, analysing and graphic facilities not available in even the most expensive accounting systems. It would take you months of effort with a sophisticated database/spreadsheet/graphics package to achieve half of what **MONEY MANAGER PLUS** can. Whether you run a substantial business or just need to sort out your personal finances, **MONEY MANAGER PLUS** can help you.

To run the system you just switch on, load **MONEY MANAGER PLUS**, and select a data file to be loaded from your disc into the system. You can then make new entries in any order that suits you (or amend existing entries). You can reconcile entries against bank statements received. You can produce your own statements and reports (including graphical charts) with amazing variety and selectivity to answer any questions you might have about your current financial situation. You then save the data file for the next time you need to use it. You may have any number of separate data files (or sets of accounts) covering several years, and store several on one disc. When required, a 12-month data file can be rolled forward by a month at a time.



- 12 months accounts per file, 300 entries per month
- Up to 9 user-defined accounts (banks, cash, credit cards etc)
- Up to 50 user-defined classes of income/expenditure
- Optional reference (up to 6 characters) for each entry
- Your own descriptive text (up to 18 characters) for each entry
- Optional extra label in each entry to allow further selectivity
- Fast and easy data entry - like filling out a bank statement
- Correct incorrect entries at any time
- Standing orders/standing entries
- Sort entries into date order when required
- Detailed statements for any range of months
- VAT reports in detail and in VAT return format
- Monthly reports for each class of transaction
- Reports showing activity in each account

- Consolidated class group reports
- Account balances month by month
- Bar charts for up to three categories of entry
- Pie charts for up to 12 categories of entry (PC)
- Facility to search through accounts for lost items
- Total monthly income, expenditure and cash flow
- Account and class totals
- Bank statement reconciliation
- Budget cash flow forecasts
- Automatic creation of data file back up copies
- Print all reports
- Comprehensive manual
- Two sets of practice data
- Free telephone support

For mail order, send a cheque for £39.95, or phone quoting an Access, Visa or American Express card number, and the program will be mailed to you within one working day. Please specify model of computer! Mon-Sun 8AM-10PM

Connect Systems 3 Flanchford Road, London W12 9ND. Tel.: 01-743 9792



# PIECES OF EIGHT

If you've finally decided to connect your PCW to everything and get it running the house then an input/output module is an essential tool

## INPUT/OUTPUT MODULE

£39.95+VAT • SM Engineering  
• 0323 766262

One of the more satisfying/amusing occupations for computer enthusiasts is persuading the machine to step outside its skin and do something in the world beyond the glass front. PCW owners do this every day, of course, with their printers, but there isn't the same satisfaction there as in persuading it to draw the curtains, turn on the lights, or turn off the television when Neighbours comes on.

For any control application there are two components to be considered: the hardware and software. Most of the electronic hardware required to interface the PCW with the world can now be bought off the shelf (much of it from SM Engineering itself), but you generally have to take care of the software side of things yourself. This is where a test module can come in so useful.

The module comes as a circuit board with a connector for the parallel I/O interface (which SM Engineering also provide (see issue 15)) and a through connector on the other side. This allows the test module to be in-line with any equipment you're interfacing; naturally you need the interface to get anything happening at all.

On the board are eight LEDs (Light Emitting Diodes) and eight small toggle switches, one for each LED. Each LED represents one **bit** of the eight bit **byte** which the PCW can send or receive via the expansion port.

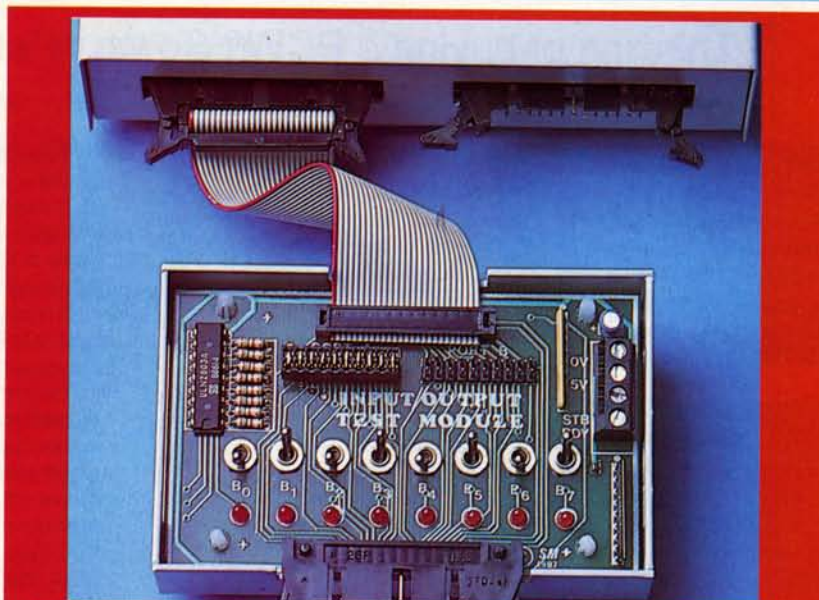
## Port: enough said

The ports in the PCW are a bit of a mystery to most people - even what they are can be hard to understand. The Z80 has 16 address lines which allow it to address 2 to the power 16 memory locations (gives 65535 bytes of RAM direct addressing), but it can also do a different kind of addressing; it can address a port.

A port is a way for the Z80 to address devices attached to it - such trivia as the screen, the keyboard, the printer, all the extra banks of RAM and various internal chips are all contacted via ports.

When calling a device using a port the Z80 only uses the upper eight address lines to specify the port number (which means only 2 to the power 8 (256) addresses and so only 256 output devices) and the lower eight address lines to carry the actual value being sent or received; it's all quite simple really.

The addresses and effects of most of the ports used by the PCW aren't available to the general public (or even us) but those used by the expansion bus are. These are thoroughly detailed in the documentation supplied by SM Engineering.



The input/output test module is simple to use, works well and comes with documentation and programs, but it is expensive.

If all the switches are pushed toward their respective LEDs, then the Test Module will show the state of bytes *output* from the PCW - always assuming you are sending some. If you want to test the effect of receiving a particular byte then the board can be read; simply set the switches that represent the bits you want **on** (logic 1) toward the LED and those that represent **off** (logic 0) away from the LED. Reading the relevant port will now show the byte you wish to receive and you can check that your software is responding as it should.

For anyone involved in using the PCW to develop control applications, some means of checking whether the right signals are going in and out is essential; of course you could put something together yourself (you couldn't? that's hard to believe), but is it worth the effort when you can buy something off the shelf?

The fact is that the test unit is well-built, easy to use and comes with sample programs to show how to use it. Though expensive, if you're involved in the

sort of work that requires it, the test module is a good buy. As an aid to teaching the interaction of computers and the (more) real world it would be excellent. ■

```
5 REM Output byte via port A channel 1
10 REM Adapted from S Marks
20 outcode=15
30 con=170
40 dat=168
50 OUT con,outcode
60 PRINT
70 PRINT "Number input from keyboard will be
  displayed"
80 PRINT "in binary format by the LEDs on the
  Test Module"
90 PRINT "press STOP to exit"
100 PRINT
110 INPUT "What is your first number ";num
120 PRINT:PRINT
130 IF num <0 OR num >255 THEN PRINT "0 to
  255 only" ELSE OUT dat,num
140 PRINT
150 INPUT " and your next number ";num
160 GOTO 130
```

This little program will work the lights on the board, a trivial thing to do but it does show how to output bytes via the expansion port and check that you are getting the right values.

## Mere details

If you've always wondered how technical types know so much about the finer points of chips then now we'll tell you; they read the manual. The manual in question is the data sheets on the Z80 family of microprocessors and support chips, available from SM Engineering for £4.95.

## TEST MODULE

### PLUSES

- ▲ Easy to use
- ▲ Well documented
- ▲ Programs supplied
- ▲ Through connection

### MINUSES

- ▼ Expensive
- ▼ You need the interface



# SMART

Thinking of buying a PCW? So was Peter Hadleigh. In exchange

Sometimes we here at 8000 Plus can get a little blasé about the problems confronting newcomers to the PCW. Vistas of opportunities can seem like insoluble problems and the pitfalls appear dauntingly deep. With these thoughts in mind, we're starting an occasional series following the progress one newcomer makes with the PCW. Without further ado let's be off to Ludlow.

## Out Shopping

Like most computers under £1000, these days the PCW is a commodity item. This means that no matter where you buy it, the contents of the box will be the same. With more than three quarters of all stores that stock computers currently carrying PCWs, there's no problem finding one, and as our recent survey demonstrated, they all know about the same when it comes to offering advice - which is extremely little.

With this in mind, we chose to buy from somewhere convenient that would

offer as little hassle as possible. It turned out to be Dixons in Shrewsbury - a long way from Ludlow, true, but that's how things went.

We agreed to buy Peter an 8256 which seemed adequate for the kind of things he wanted to do, leaving the way open for a later upgrade if one is needed.

Remember that while all the machines are tested and working before they go into the box, the journey from Korea is very long - and there are a few bumpy bits. So we insisted on getting it out of the box and testing it again in the shop. A good thing we did since - much to the consternation of the salesman - it duly failed to work.

All we got was a greenly glowing screen and nothing else. It simply refused to load either LocoScript or CP/M.

In the end we took the shop display model, at a discount, which was a good deal. We knew for certain that it had been running for weeks with no problems; generally, electronic equipment either fails within a few days or not at all. Now read what Peter has to say.



Confusion all round as the PCW refuses to work. Test equipment in the shop before you buy. After all, it's easier than taking it back.

The thought of getting a computer had been with me for quite a while, but models, features and storage capacity meant very little to me. I was thoroughly uninitiated in the ways of computers. Still, the chance to have one and write up my attendant experiences seemed a great idea. My initial enthusiasm was immeasurably dented, however, when everyone I spoke to in the trade about computers reacted in one of three ways: total cynicism, they'd either attempted to work with them and given up, or had previously held down computer-related jobs and were prepared to sell machines and/or software. I assumed that these attitudes were largely generational (at 28 I am one of the youngest members of the trade) or the product of a small trade where eccentric behaviour is usually considered to be the norm.

Still, the computer would be a great help with stock and particularly for accounts. (My accountant was not very keen; a casual mention of this impending computerisation in a phone call led to his weary voice explaining that he'd had many smaller clients who had taken the leap but eventually given up. If I was to continue with this, I must keep a separate written record of everything, he insisted!)

A conversation the next week with a London bookseller delighted with going back to his box-file after four months on a computer saw my enthusiasm in danger of giving way to a migraine. My attempts to relax were hindered by all the problems I had programming the video purchased at the same time as the computer. Clearly, I would have to develop a working attitude towards this technology.

## Rootin' tootin' typeritin'

As outlined above, I did not expect anything earth-shattering from the machine; if it had any functions beyond being a typewriter with a storage capacity, they would have to be learnt. 'First Impressions of LocoScript 1 and Setting Up Your Own Template for Correspondence' were my first tasks.

Keeping the manual very close at hand, I was impressed at how quickly the introduction deals with the keyboard and any obvious errors. Chapter 2 ('Your First 20 Minutes') did a little to increase my confidence. However, being in possession of very dodgy keyboard skills myself, I was much impressed at the speed with which errors could be corrected using the cursor keys.

Moderately encouraged, I thought it was high time to investigate all those suspicious-looking function numbers which had looked a little intimidating at the top of the screen, and print out a simple letter. Again following closely the procedure outlined in the exercise this seemed straightforward enough. However, inserting a sheet of paper in the printer and getting it to actually print



# MOVES

his experiences (with the PCW of course), we bought him one.

it out proved harder than it looked. When I retraced my steps through the instructions, there seemed little wrong. Getting a little annoyed, I phoned a friend whose only useful advice was to check the printer's connections - they were fine.

A few minutes later it dawned on me that the printer was simply not keen on loading a thick laid paper and therefore required some encouragement. After a couple of creased sheets had ended up in the bin, this problem was dealt with. Talking to another 8256 owner later, I discovered that he had had the same problem initially but after some coaxing this had been resolved. Well, the initiation had been painless enough, now to the template.

## Customer query

Central to the antiquarian book trade is its informality: customers (when one is lucky enough to find them) seem to relish a personal touch with the result that many become friends. The last impression, then, that I wanted to give was that I had been phased out and replaced by a computer. Therefore any template had to be flexible enough to cope with the many situations in which I conduct business.

Upon consideration, it seemed that it would be most suited to fairly standard enquiries about certain items in stock. A typical request (usually a follow-up to meeting someone at a book fair) is for a list of titles, held either by author or subject area.

Now to set the thing up; out came the manual again (p125) and I was quite happy typing the information in to answer a customer's request. Not wanting to get in over my head too soon, I thought I'd leave the margins as the computer seemed to like them. So it was time to try a printout.

I should have learned from my previous experience with the printer; it wasn't going to be that easy. This time the printer accepted the paper without much protest, but the position of the text was another matter. I carefully positioned the paper so the ribbon lined up with where I wanted the text to start, but of course I hadn't realised that the printer would wind my paper on after I'd put it in!

Despite the slight problem of my name disappearing off the bottom of the paper - hardly the way to start a customer relationship - the quality was much better than I'd expected, my sole previous contact with printouts having been near-illegible bills and junk mail.

## Bold moves

But, it now occurred to me that my text wasn't any different from a typewritten letter, and being so short it hardly merited the attention of my new Amstrad. So, I looked through the manual to see what could be done to make the text more attractive. The section on bold and italics caught my eye, and I realised that here was

something which would really set my letters apart from mere typescript!

It was confusing at first, not being able to actually see my elegant italics and powerful bolds on the screen, but after checking their position several times (and then checking again) I thought I'd give the printer a go and see how they came out.

So I crossed my fingers (second time lucky), did a complicated mental calculation and deliberately left the paper just in. Missed by an inch. Damn it. On the third time everything seemed to go smoothly, producing quite an elegant result. The different type styles really did make things clearer (particularly the bold to separate off different titles). After all this trouble, I trust Mr Howells will develop into a profitable customer!

Now that I'd actually used the 8256 in the course of business for the first time, I was ready to put it to work on what I see as its most useful function at 20th Century Books: the catalogues! The first one on the computer will be a hundred-item list of new acquisitions, and now that I've got this flexible word processor (and all these type styles!) I should be able to save on the local printer's bills. If only the 8256 had a built-in photocopier too... ■

## Peter Hadleigh himself

After completing a degree in English and Film, my most obvious career (if not the only application) was teaching. Not being terribly excited at the thought of doing this, I decided to become a secondhand/antiquarian bookseller (the distinction is still much argued about). At first my idea was to catalogue and to sell through book fairs, but in March 1986 the chance to move to Ludlow and buy a bookshop that was already established proved irresistible.

The town lies roughly halfway between Hereford and Shrewsbury, close to the Welsh Border, and is probably most familiar as the setting for the television adaptation of Tom Sharpe's 'Blott on the Landscape'. Mention of the town usually elicits one of two responses: 'Where?' or 'I love Ludlow, you are lucky to live there, I remember when....'

One of the most telling points about the trade is the reliance for business on other traders; often the only customer for a given item is another dealer, usually a specialist one. I have continued to specialise mainly in 20th century literature and illustrated books, and keep a stock of around 600 - 900 items in these subject areas.

Naturally, having a shop open to the

general public has meant keeping a more general stock as well and distracted me from dealing in the books I find particularly interesting. The main impetus for using a computer was to get back to developing these specialities, particularly through catalogues, an important aid to develop a wider customer base.

Actually receiving a catalogue in the post is more stimulating than the 'browsing' approach that dominates shops and (to an extent) even book fairs. My current aim is to issue a catalogue of specialist titles or a more general new titles list every two months.





# BUSBY GOING CHEAP

Speech is free - unless you're doing it over the phone lines. But proper planning can dramatically reduce the cost of comms

## Reams of it

If there is any problem with the techniques described here it has to be the speed with which the printouts tend to build up. For some reason collecting log files seems to bring out the Maggie in people. A stapler or those binders especially designed for continuous paper are a good idea.

If you enter a house you've never been in before, the temptation to look behind every door, not to mention in every cupboard, can be too much to resist. Once into a bulletin board you're positively encouraged to do exactly that, and it's hard to resist looking in just one more room.

All this wandering around peering into every nook and cranny takes time, and your phone bills will quickly tell you just how inquisitive you've been. So how can you keep the cost of curiosity down to a level that doesn't break the bank?

There are several strategies that you can adopt, but all of them require a little discipline to begin with. The first thing is to make good use of log files. These are simply files that capture everything that appears on the screen of the PCW. This feature is quite distinct from the ability to capture a downloaded file.

Just about all comms programs support this session log feature, if for no other reason than that it is convenient to have a record of a comms session. In the early days it was often the only way of finding out what had gone wrong. Nowadays the main use for it is quite different; it allows you to learn how to operate a bulletin board without being on it - which is cheaper.

you want to investigate and then quit).

If you normally use LocoScript for word processing, you now have to copy the saved file to disc before getting LocoScript going. Protext or WordStar users can simply start their word processor and read the Ascii file created by the comms package straight in.

Now you can tidy up the file, rearrange all the menus for ease of reference, give them a nice title and print them out. You'll probably have several pages of explanation and menus about that particular bulletin board which will tell you how to use it and where everything is. Now, whenever you wish to access that board, simply look it up in your file of printouts - instead of blundering around and trying to remember where everything is you can go straight to the location you want.

## Speaking of which

Most of the time you will want to read the messages on any bulletin board you access. At 1200 baud the messages can scroll faster than you can read them, and anyway, why pay British Telecom for the privilege? Just start a log file, scroll through them as fast as possible, and log off. Now you can read them at leisure using nothing more than the TYPE command or edit them and save those you want to keep or reply to.

These two techniques alone can save you pounds every month, but there's even more you can do. For example, many comms packages allow you to send a file when in terminal mode (instead of typing the message in at the keyboard). This means that you can prepare messages, and replies to the messages of others, using a word processor while off-line. These files are obviously much easier to edit than those typed in while logged-on (a laborious process on most bulletin boards) as well as being far quicker to transmit.

Messages that might take you an hour of thought (with constant references to the message file you downloaded earlier) can be sent in a few seconds - clearly a big saving when compared with the cost of doing it all while on-line. Now you're really beginning to get value for money out of your modem.

## TIME & MONEY

### Charge Rate Period

| Type of Call and Charge Letter | Charge Rate Period                            |  |                         |
|--------------------------------|---|--|-------------------------|
|                                | Cheap<br>Mon-Fri 6pm-8am<br>Sat & Sun all day | Standard<br>Mon-Fri 8am-9am<br>and 1pm-6pm | Peak<br>Mon-Fri 9am-1pm |
| Local (L)                      | 360   | 90   | 60                      |
| National (a)                   | 100   | 34.3                                       | 25.7                    |
| National (b1)                  | 60  | 30   | 22.5                    |

When you call can be as important as who you call. If you're going to be on line for a while call off peak. Similarly, given a choice, use the bulletin boards at the end of low-cost long-distance lines where possible.

## Reference work

How you turn the log file on varies from program to program. For instance in Dialup you have to be already logged-on to a host in terminal mode first: press [f3], and then supply a filename to echo everything to.

Other programs (like UKM7) allow you to record everything from the moment you invoke the program. Generally it's a good idea to use the much faster M drive for this as you can lose incoming data during disc accesses to floppies. The PCW can't access the serial port while reading or writing to a file.

However your program works, the general procedure to adopt remains the same. Simply go through as many menus as you can find as rapidly as possible, set yourself a time limit of say five minutes and then log off. Now close your log file and quit the comms package (or do the same thing for any other bulletin board

```
SYNTAX: primaryoption[secondaryoptions] [d:][filename] [afn]
PRIMARY OPTIONS:
S Send binary files, afn list
R Receive binary files, drive:
I Terminal mode, terminal filename optional
DEL Delete terminal file
DIR Directory list, afn optional
CPM Exit to CP/M.
LOG Log all drives
SET Set tx/rx baud rates (currently: TX = 1200, RX = 1200)
OPT Set tx/rx options (currently: PARITY:none, BITS:8, STOP BITS:1)
DRV Change default drive (currently: A:)
X Expert, toggle menus on/off
M Menu display

SECONDARY OPTIONS: (for primary options S and R)
N Non batch mode, send or receive file
Q Quiet mode, remote system Send/Receive
S,R,V Monitor data Sent, Received or View file
I Go to terminal mode after file transfers
A ==> I M:STRANGE.LOG

tv Terminal file M:STRANGE.LOG toggle save on/off ':' =on
ti Transfer (Send) ASCII file without checks
tx Abort transfer initiated above
tc Computer mode, toggle echo on/off
tf Send following character literally
te Exit to command menu
td Display terminal menu
```

In Ukm7, it is possible to send all screen output to a file, beginning even before you dial anyone. All it needs is the T option (from the main menu) and a file name.



# Add style to your PCW – with LocoFont

LocoFont gives you a range of typestyles to use on your PCW's built in matrix printer. With LocoFont you can match your typestyle to your mood – Roman for an important letter to the bank manager, Script or Penman for more personal correspondence...

There are 14 typestyles to choose from – 10 in Set 1 and 4 specialist fonts in Set 2.

**Set 1 £19.95**

Please find enclosed confirmation of your order for an additional 50 brass fittings with screw threads. But note...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

Taking as our hypothesis  $\nabla \zeta_1 \theta \Sigma_2 \approx \emptyset$   
the argument gives the result  $\int \nabla \Sigma_2 \theta \Sigma_1 = 0$   
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

You are invited to Ted's housewarming party. The new house is supposed to be finished on the 27th June, ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

We're glad to hear that you enjoyed the little "surprise" party that we organised for you on your birthday. I'm sorry that I...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

Avocado Pear £2.95  
Seafood Cocktail £2.50  
Cucumber Soup £1.95  
Fresh Mussels £4.50  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

Word Processor: Used to describe a computer together with special software or simply to describe the software. A word processor provides a facility to create and modify documents on a screen before ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
12345 εζθϊά \*\*\*\* ∇δϰϳ

John & Maureen Hough  
Elsey Antiques,  
27 The Square, West Street,  
Worcester, Gloucestershire.  
Phone 0542 76634  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
12345 εζθϊά \*\*\*\* ∇δϰϳ

**Set 2 £14.95**

The software contained in this package is supplied to you on the terms and conditions indicated below. The opening of this package indicates your acceptance of these terms and conditions. If such terms and conditions are not accepted ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

It seems ages since I last wrote to you – and even longer since we last met. Now that I've got more time why don't we meet up in London one day soon for a ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
12345 εζθϊά \*\*\*\* ∇δϰϳ

**Both sets together SAVE £5**

Please send me the following:

FOR THE AMSTRAD PCW 8256/8512

LocoFont Set 1\* £19.95 ☐  
LocoFont Set 2\* £14.95 ☐  
LocoFont Set 1 & 2\* £29.90 ☐  
LocoScript 2 & LocoSpell £34.90 ☐  
LocoScript 2 £24.95 ☐

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

☐ I enclose a cheque for TOTAL £ \_\_\_\_\_  
☐ Please charge my Access/Visa card EXP Date \_\_\_\_\_

Signed \_\_\_\_\_

Send to Katy Buchan at:  
**LOCOMOTIVE SOFTWARE**  
Allen Court, Dorking,  
Surrey, RH4 1YL  
TEL 0306 740606

\* For LocoScript 2

Note: All prices include VAT and UK postage

# LocoFont

For LocoScript 2  
On the PCW8256/8512

FOR SALE: MINI 1000 – Good  
LITTLE RUNNER, NEEDS A LITTLE  
WORK. TAX AND MOT UNTIL AUGUST.  
NEW SUBFRAME AND BRAKES. OFFERS  
ABCDE ABCDE ABΓΔΕ ABΓΔΕ ABBT  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

The minutes of the previous meeting were accepted as correct. There were five matters arising which were ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

We have been forced to adopt a tougher approach to returns of faulty product. No returns will be accepted without prior ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

The Residents Association  
« Annual Fête »  
The fête this year will be held on the 10th June at 2.30 pm  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

After disconnecting the mains power, unscrew the three screws marked 'A' and remove the cover slowly. Be very careful not to ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

The software contained in this package is supplied to you on the terms and conditions indicated below. The opening of this package indicates your acceptance of these terms and conditions. If such terms and conditions are not accepted ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
ABBT 12345 εζθϊά \*\*\*\* ∇δϰϳ

It seems ages since I last wrote to you – and even longer since we last met. Now that I've got more time why don't we meet up in London one day soon for a ...  
abcde ABCDE αβγδε ABΓΔΕ αβγδ  
12345 εζθϊά \*\*\*\* ∇δϰϳ



# LOCOSCRIPT

Is LocoScript 2 really that much better than its agent?

Amstrad have packaged LocoScript 2 with the PCW9512 right from the start. They did this because the 9512 machines were aimed at a more demanding customer – the business user. But if it's really that good, then shouldn't more 8000 series owners be making use of it?

## One! Two! Char, Char, Char!

LocoChar comes with LocoScript 2. It allows you to redefine up to 16 characters which can then be shown on the screen or printed out. You can create scientific characters, or even runes if you are that way inclined. After some initial bafflement you may find yourself becoming addicted. Beware, it is all too easy to find your work littered with unwanted characters.

**L**ocoScript 1 is undoubtedly a fine program, easing new users into the power and complexities of word processing – and it comes free when you buy the 8256 or 8512. But should you stay with it simply because you started with it?

The menu system of LocoScript 1 guides you gently through from relatively straightforward actions such as underlining text to more complex concepts such as page layout. For the newcomer, this easy access to the power of the program is a boon. However, the more experienced you become the more you will find yourself using the shortcut keystrokes such as +B or -UL as you try for greater speed and efficiency.

The job of a word processor is to ease the labour involved in working with text. With the drudgery alleviated there seems to be more time in which to consider the words themselves. Whether you're a business person using your PCW to write letters to clients, a student writing essays to deadlines or a club secretary producing leaflets (just a few examples from among the 8000 Plus readership), the one linking factor is the need to get as much done in as short a time as possible. But LocoScript 1 soon hits the stops and you can find yourself working to its limitations rather than your own.

## The Sins of the Fathers

While LocoScript 1 is a strong word processor, it was designed at a time when the potential of the 8000 series PCW had not been fully appreciated, let alone achieved. Locomotive appeared to assume that A4 single sheet or 11" continuous stationery were all that would be required by PCW users. The PCW was not credited with the ability to achieve many of the tasks, such as desktop publishing

or database work which, as has subsequently been shown, it is quite able to do.

LocoScript 1, for example, cannot be made to support any other printers. It was assumed that PCW owners would not want to attach a faster dot matrix printer, or a daisy wheel printer, to their machine. It was also assumed that PCW owners would not want to use other typesets.

Still, most of the restrictions imposed by LocoScript 1 can be overcome if you don't mind spending a few hours delving into the manual for details. But one limitation which can't be overcome is the speed at which LocoScript 1 carries out your orders; once beyond page two of your autobiography you might well be tempted to shorten your life – LocoScript 1 is mind-numbingly slow.

The problem is in the software; the PCW itself is capable of operating at far greater speeds than those which LocoScript 1 will allow. These, and other, problems have been voiced since the PCW became the country's favourite word processor. PCW users have made their feelings heard on all of the above points.

## The son also rises

Locomotive eventually dealt with all of these points and many more with the release of LocoScript 2 right back in May 1987. In fact when Amstrad brought out the PCW9512 it was apparent that LocoScript 1 wouldn't go with the upmarket image of the machine – but LocoScript 2 would. Of course there was another important reason; 9512 owners were going to get a daisy wheel printer – but also they were to get a built-in printer port.

To make use of other printers they needed LocoScript 2's printer support. The first glance at LocoScript 2, or rather its examples disc, will show that it supports upwards of fifteen other printers. Not only this, but the choice of paper comes down to the users' discretion rather than the dictates of the software. None of this was to help buyers of the 8000 series PCWs who continued to get LocoScript 1 bundled with their machine.

This new ability to change paper is a good example of the flexibility which LocoScript 2 provides. Previously, in LocoScript 1, your options from the Printer menu were confined to such joys as Draft or High Quality, single sheet or continuous stationery and header gaps – and that was that. With LocoScript 2 the vistas opened to give far more scope.

In fact you can even define your own paper type. By pressing the [f6] function key you bring up the Settings menu. This, in effect, allows you to look at the piece of paper you have in your hand and describe it to LocoScript. You state whether you want landscape, which will allow more characters to be printed across the sheet, or portrait, which allows more length. The ability to alter the gaps is also available.

These gaps are the areas at the top and bottom of the sheet upon which the printer will not print. After all this has been done, and you've ended up with a six inch wide, four inch high paper type which prints four words in the middle, you then get to name your creation and save it in a file called Settings.Std. This file is maintained automatically by LocoScript 2 and holds not just the paper type you're using but the printer details (which sort you're

| C=Create new document      |  |  |  | E=Edit document    |  |  |  | P=Print document    |  |  |  | D=Direct printing |  |  |  |
|----------------------------|--|--|--|--------------------|--|--|--|---------------------|--|--|--|-------------------|--|--|--|
| f1=Actions                 |  |  |  | f2=Disc            |  |  |  | f3=File             |  |  |  | f4=Group          |  |  |  |
| f5=Document                |  |  |  | f6=Settings        |  |  |  | f7=Disc             |  |  |  | change            |  |  |  |
| f8=Options                 |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |
| Drive A:                   |  |  |  | Drive B:           |  |  |  |                     |  |  |  |                   |  |  |  |
| 170k used 3k free 13 files |  |  |  | 0k used 0k f       |  |  |  |                     |  |  |  | 8k free 3 files   |  |  |  |
| group 0 168M               |  |  |  | group 4 0k         |  |  |  | New Paper Type      |  |  |  | group 4 0k        |  |  |  |
| group 1 1k                 |  |  |  | group 5 0k         |  |  |  | Paper Types         |  |  |  | group 5 0k        |  |  |  |
| group 2 0k                 |  |  |  | group 6 0k         |  |  |  | New Character Style |  |  |  | group 6 0k        |  |  |  |
| group 3 0k                 |  |  |  | group 7 0k         |  |  |  | Character Styles    |  |  |  | group 7 0k        |  |  |  |
| A: group 0 12 files        |  |  |  | A: group 1 1 files |  |  |  | For Character Set   |  |  |  |                   |  |  |  |
| 1 limbo files              |  |  |  | 1 limbo files      |  |  |  | Standard            |  |  |  |                   |  |  |  |
| DATABASE.DBS 1k            |  |  |  | NEWBOOK.000 1k     |  |  |  | For Printer         |  |  |  |                   |  |  |  |
| DISCMAN.JOV 27k            |  |  |  |                    |  |  |  | MATRIX              |  |  |  |                   |  |  |  |
| DOCUMENT.001 1k            |  |  |  |                    |  |  |  | Standard Printer    |  |  |  |                   |  |  |  |
| J2041.LOC.EMS 41k          |  |  |  |                    |  |  |  | Printer Defaults    |  |  |  |                   |  |  |  |
| LOCOSPEL.DCT 36k           |  |  |  |                    |  |  |  | Write SETTINGS.SID  |  |  |  |                   |  |  |  |
| LOCOSPEL.JOV 6k            |  |  |  |                    |  |  |  | EXIT                |  |  |  |                   |  |  |  |
| MAIL.MRG 1k                |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |
| MATRIX.PRI 14k             |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |
| PHRASES.STD 1k             |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |
| READ.ME 7k                 |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |
| SCRIPT.JOV 33k             |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |
| SETTINGS.STD 1k            |  |  |  |                    |  |  |  |                     |  |  |  |                   |  |  |  |

Locoscript 2 saw, among other modifications, the advent of the [f6] settings menu.



# IT GROWS UP

but revered forebear? Tim Smith gives you the word.

using) and which typestyle you normally use – your whole printing environment.

## Read all about it

You can treat this file in the same way as you would Phrases.Std and create as many as you like, each one suited to a different activity. In fact LocoScript 2 is clever enough to tell you when the Paper Type in Settings.Std doesn't match the format of the document you're printing out and offers you the choice of continuing or stopping.

LocoScript 2 treats its page layouts in a far less rigid way than version 1. Where LocoScript 1 must find a Template to work to from somewhere, LocoScript 2 will let you create documents with no Template. Each document can be treated as a unique type unless you decide otherwise.

Phrases and blocks are also dealt with in a more logical manner. It is unlikely that anyone remembers a phrase as A or a block as 1. It is far easier to be able to see what the saved text actually says. LocoScript 2 allows this with its Show Phrase/Block options which give the first few words of a block or the whole phrase. You still paste by number or letter but now you can check that you have the right text first.

The function keys in the disc manager screen have been changed so that Groups, Files and Documents are together as opposed to Copy, Erase and Move – you are far less likely to erase a document by mistake. But both versions have the same look and feel so any worries about finding yourself in unfamiliar territory are quickly snuffed out. One of the best parts of the entire LocoScript 2 package is the manual. Written by Jean Gilmour, who was also responsible for the first manual (and has therefore had plenty of practice), it teaches by example. Unlike the book which accompanies the 8000 machines which has to cope with CP/M, Basic and Logo, this new tome is dedicated to LocoScript 2. There are 21 tutorials or 'sessions' which run through the range of functions available to the LocoScript 2 user in clear, concise fashion.

## Add-On and Eve

LocoScript works under its own operating system which is why, without Flipper, you are unable to move between it and CP/M. In the case of LocoScript 1, this meant that if you needed to do anything other than word processing you were forced to switch off and begin again with the C/PM disc (including formatting discs). This tended to cause extreme irritation to those people who needed to get back to their databases, do a word count, or format a new disc.

Different people use LocoScript for different reasons; a technical writer – and this might be someone writing a local village history – might need to call up references from a database. A business will need to send mailshots, the list goes on.

As a simple example, many people require a dictionary, a dict...a spell checker. Although Locomotive once provided LocoSpell for LocoScript 1 this is no longer available from them, to enjoy the professional appearance of spell-checked documents you first have to upgrade to LocoScript 2. There are other benefits to be had.

LocoMail is the add-on which allows LocoScript to

perform repetitive commands and mailmerge from a database of names and addresses. LocoFile is a strong dedicated database system for which many people have begun to develop applications as diverse as thesauri and technical libraries.

Locomotive have extended the internal range of the characters in LocoScript 2, including the complete Greek character set as standard. But LocoScript 2 can go even further, foreign versions are available ranging from Arabic to Welsh and if that's still not good enough there's LocoChar which enables you to create your own characters – handy for Oriental linguists or creating logos.

## Up! Up! and Away

In conclusion, while LocoScript 1 proved a dramatic improvement over the old Selectric it comes nowhere near to developing the full potential of either you or your PCW. If you've reached the point where the limitations of LocoScript 1 are beginning to chafe then LocoScript 2 would be good move. If you want to use the various add-on programs like LocoMail, LocoSpell, or LocoFile then upgrading to LocoScript 2 is absolutely essential. ■

## Welcome to the Pleasuredom

LocoSpell is notorious for both the words it includes and those it misses out. Locomotive's original choice of dictionary tended toward the unusual though they are in the process of making it a little more accessible. It should be treated with caution until you have built up a few user dictionaries containing the words you actually use. These few lines from a famous poem by Coleridge might serve to illustrate the point:

**In Xerox did Keel Keen**

**A state pleasure-dome degree**

**Where All, the sacred river ran**

**Through cameras measurement to man**

No prizes for naming the poem...and we like to think that Coleridge might have appreciated the translation in his less lucid moments.

## Speed Thrills

Actions tend to speak louder than words. Here are a few time trials taken with both LocoScripts working in the M: drive. All timings have been taken over a 9k block of straight text. Each page consists of roughly 3k. All timings are approximate but even so, the increase in speed is dramatic.

| Movement:                       | LocoScript v.1 | LocoScript v.2 |
|---------------------------------|----------------|----------------|
| Cursor through single page      | 7-8secs        | 4-5secs        |
| Move 1 page using Doc/Page key: | 7-8secs        | 3-4secs        |
| Cursor through 9k doc           | 24-25secs      | 12secs         |
| Move 9k using Doc/Page          | 23-24secs      | 8secs          |
| Copy 9k block using cursor keys | 105secs        | 77secs         |
| Copy block using Doc/page       | 125secs        | 55secs         |
| Paste Block (into document)     | 175secs        | 105secs        |
| Block (in to blank page)        | 130 secs       | 90secs         |

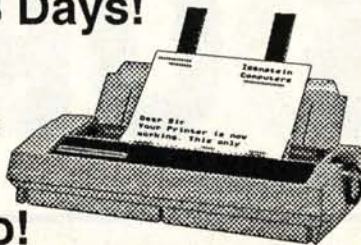


**OUR POPULAR FIX-A-STRAD SERVICE**  
**SPEEDY PCW REPAIR :- PHONE 0244 312986 NOW!**

## Your PCW Repaired In 4,6 or 8 Days!

**KISENSTEIN**

## We Repair PCW Printers Too!



### ● BRONZE SERVICE (Back in 8 Working Days)

- 1) YOU PAY FOR DISPATCH AND COLLECTION.
- 2) WE REPAIR YOUR FAULTY PCW ITEM WITHIN OUR MIN-MAX CHARGE. (below)
- 3) WE GIVE YOU A FURTHER 10% DISCOUNT OFF OUR ADVERTISED COSTS.

### ● SILVER SERVICE (Back in 6 Working Days)

- 1) YOU SEND US THE FAULTY PCW ITEM FOR REPAIR AT YOUR COST.
- 2) WE FIX IT WITHIN OUR MIN-MAX CHARGES. (see charges below)
- 3) WE SEND IT REPAIRED BACK TO YOU VIA OUR COURIER.

### ● GOLD SERVICE (Back in 4 Working Days)

- 1) WE ARRANGE COURIER COLLECTION AT OUR COST.
  - 2) WE REPAIR AND TEST THE FAULTY ITEM.
  - 3) WE SEND IT BACK TO YOU VIA COURIER.
  - 4) FOR GOLD SERVICE YOU PAY ONLY THE MAXIMUM CHARGE (see below)
- This service is open to Access/Mastercard Card holders only.

| PCW REPAIR  | Min Charge | Max Charge |
|---|------------|------------|
| Faulty PCW8256/512 Keyboard.....                            | £15.00     | £65.00     |
| Faulty PCW9512 Keyboard.....                                | £15.00     | £95.00     |
| Faulty PCW8256/512 Printer.....                             | £18.00     | £80.00     |
| Faulty PCW9512 Printer.....                                 | £25.00     | £115.00    |
| Faulty PCW8256/512 Monitor.....                             | £30.00     | £150.00    |
| Faulty PCW9512 Monitor.....                                 | £30.00     | £150.00    |
| Faulty I Don't Know what it is? (sending you the lot!)..... | £50.00     | £185.00    |

Note:- For Bronze and Silver Service, Please send payment for our minimum charge our Engineer will inform you of the exact repair cost before dispatch

## THE D.I.Y. PCW SPARE PARTS DEPOT

**We stock every PCW part! ...just some below:-**

### ● COMPLETE AMSTRAD PCW PARTS:-

| ORDER CODE | DESCRIPTION                                | PURCHASE PRICE |
|------------|--|----------------|
| 271000     | PCW8256/512 Complete Working Keyboard..... | £115.00        |
| 277000     | PCW9512 Complete Working Keyboard.....     | £135.00        |
| 271200     | PCW8256/512 Complete Working Printer.....  | £135.00        |
| 277200     | PCW9512 Complete Working Printer.....      | £185.00        |
| 271300     | PCW8256 Complete Working Monitor.....      | £145.00        |
| 271301     | PCW8512 Complete Working Monitor.....      | £245.00        |
| 277300     | PCW9512 Complete Working Monitor.....      | £255.00        |

### ● AMSTRAD PCW CIRCUIT BOARDS:-

| ORDER CODE | DESCRIPTION                     | EXCHANGE PRICE | PURCHASE PRICE |
|------------|---------------------------------|----------------|----------------|
| 710171     | PCW8256 PCB, CPU .....          | £66.95         | £86.95         |
| 710181     | PCW8512 PCB, CPU .....          | £75.95         | £93.75         |
| 700771     | PCW9512 PCB, CPU .....          | £80.00         | £97.95         |
| 111171     | PCW8256/512 PCB, Monitor .....  | £48.95         | £74.25         |
| 600771     | PCW9512 PCB, Monitor .....      | £48.95         | £74.25         |
| 511171     | PCW8256/512 PCB, Keyboard ..... | £21.95         | £28.95         |
| 500771     | PCW9512 PCB, Keyboard .....     | £21.95         | £28.95         |
| 831171     | PCW8256/512 PCB, Printer .....  | £15.95         | £27.95         |
| 800771     | PCW9512 PCB, Printer .....      | £15.95         | £27.95         |

### ● AMSTRAD PCW DISC DRIVES:-

| ORDER CODE | DESCRIPTION                                      | EXCHANGE PRICE ONLY |
|------------|--|---------------------|
| 500091     | PCW8256/512 'A' Disc Drive (Real Amstrad!) ..... | £64.75              |
| 422171     | PCW8512 'B' Disc Drive (Real Amstrad!) .....     | £72.75              |
| 410771     | PCW9512 'B' Disc Drive (Real Amstrad!) .....     | £92.75              |

### ● AMSTRAD PCW PRINTER PARTS:-

| ORDER CODE | DESCRIPTION                                     | EXCHANGE PRICE | PURCHASE PRICE |
|------------|---|----------------|----------------|
| 210771     | PCW9512 Printer Mechanism .....                 | £79.95         | £99.95         |
| 721171     | PCW8256/512 Printer Mechanism .....             | £39.95         | £61.95         |
| 681171     | PCW8256/512 Printer Head .....                  | £36.25         | £36.25         |
| 761171     | PCW8256/512 Motor Head Drive .....              | £14.25         | £14.25         |
| 321171     | PCW8256/512 Paper Holder (Black) .....          | £2.25          | £2.25          |
| 121171     | PCW8256/512 Paper Tray (Gray) .....             | £8.75          | £8.75          |
| 432171     | PCW8256/512 Printer Head Lid (Black) .....      | £5.55          | £5.55          |
| 810771     | PCW9512 Tractor Feed Unit .....                 | £22.95         | £22.95         |
| 112171     | PCW8256/512 Tractor Feed Unit .....             | £15.75         | £15.75         |
| 821171     | PCW8256/512 24 Volt DC Cable .....              | £5.25          | £5.25          |
| 621171     | PCW8256/512 Printer Platen Knob (Black) .....   | £5.95          | £5.95          |
| 521171     | PCW8256/512 Printer Ball Bar Knob (Black) ..... | £5.45          | £5.45          |

### ● AMSTRAD PCW KEYBOARD PARTS:-

|        |   |        |
|--------|---|--------|
| 200771 | PCW9512 Full Keyboard (Less Case) .....     | £59.65 |
| 620171 | PCW8256/512 Full Keyboard (Less Case) ..... | £46.25 |
| 332171 | PCW8256/512 Keyboard DIN. Cable .....       | £7.25  |

### ● AMSTRAD PCW PARTS MISC:-

|        |                                       |        |
|--------|---------------------------------------|--------|
| 825611 | PCW8256/512 Service Manual .....      | £12.00 |
| 951211 | PCW9512 Service Manual .....          | £18.00 |
| 310171 | PCW8256/512 On/off Power Switch ..... | £5.25  |

Please Add VAT To All Prices.

## BREAK THE PCW MEMORY BARRIER

The phone has never stopped ringing, with PCW users begging us to give the extra power needed to exceed their current PCW's processing limitations. Firstly We've expanded the memory and in the near future we will improve the disc storage space.

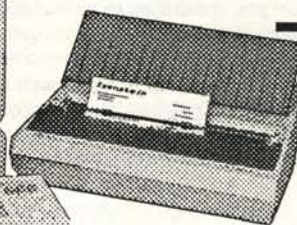
Our New "512k RAMDRIVE" adds an extra 512K of memory to your Locoscript 2 or CP/M Drive M: (Memory disc drive). This means PCW8512 and PCW9512 owners get a massive 880K Drive M: where as at a flick of a switch on the RAMDRIVE PCW8256 owners get a mere 624K Drive M:

New software is coming on to the market daily i.e.: Locofile, Printer fonts and drivers that eat up vital computer memory. With the 512k RAMDRIVE fitted you can have Thesaurus and Dictionaries all loaded in Drive M: and still be able to copy a disc.

The "512k RAMDRIVE CARD" comes as a memory expansion card that is fitted inside your PCW. Where as the "512k RAMDRIVE PACK" plugs into the expansion slot at the back of your PCW. (Other interfaces can still be fitted on the RAMDRIVE).

The "512k RAMDRIVE CARD" is the most cost effective memory upgrade without all the clutter of interface modules. (Fitting it will void your Amstrad guarantee). 512k RAMDRIVE CARDS fitted by us carry a full 6 months guarantee.

**NEW  
FITS ALL  
AMSTRAD PCW's**



**Why Not  
Buy a NEW  
Amstrad  
PCW with  
the 512k  
RAMDRIVE  
Fitted?**

### ● NEW AMSTRAD PCW'S WITH 512K RAMDRIVE:-

|   |         |
|---|---------|
| New PCW8256 with 512k Ramdrive fitted ..... | £399.00 |
| New PCW8512 with 512k Ramdrive fitted ..... | £499.00 |
| New PCW9512 with 512k Ramdrive fitted ..... | £549.00 |

### ● NEW PCW MONITOR UNITS WITH 512K RAMDRIVE:-

|   |         |
|---|---------|
| New PCW8256 Monitor Only with 512k Ramdrive ..... | £205.00 |
| New PCW8512 Monitor Only with 512k Ramdrive ..... | £312.00 |
| New PCW9512 Monitor Only with 512k Ramdrive ..... | £334.00 |



## WITH THE NEW 512K RAMDRIVE

### The 512k RAMDRIVE Options:-

1) 512k RAMDRIVE CARD fit it yourself.  
Simply follow our step by step instructions. Anyone who has used a soldering iron can fit it to their PCW's Computer Board.

**Only £98.95**

2) 512k RAMDRIVE CARD We fit it for you.

a) We Can Send you a New PCW computer board (Please state which PCW type) with the 512k RAMDRIVE CARD FITTED. If you send your old PCW computer board back we will refund the board cost.

**Only £98.95 Plus £10.00  
fitting and purchase cost of  
CPU PCB.**

b) Send us you PCW monitor under one of our bronze, silver or gold services and we will fit the 512k RAMDRIVE CARD for you.

**Only £98.95 Plus just the  
minimum cost of the  
monitor repair service.**

c) You Can Un-plug your computer board and post it to us.

**Only £98.95 Plus £10.00 fitting  
and we will send it back to  
you ready to plug in.**

3) 512K RAMDRIVE PACK just plugs in!  
Simply plug the PACK into the back of your PCW. However we feel this is not as effective as fitting inside your PCW, because it can shake loose.

**Only £159.95**

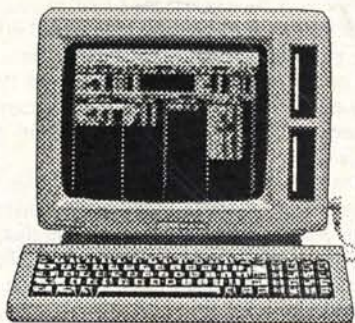
**ISENSTEIN**



Introductory  
Offer  
Up to a  
MEGABYTE  
from only  
£98.95

Your work does  
not have to stop  
while your PCW  
is with us.  
We can now  
Hire you a new  
one!

No deposit is required  
if we have your PCW  
for repair or fitting.



### AMSTRAD PCW HIRE SERVICE:-

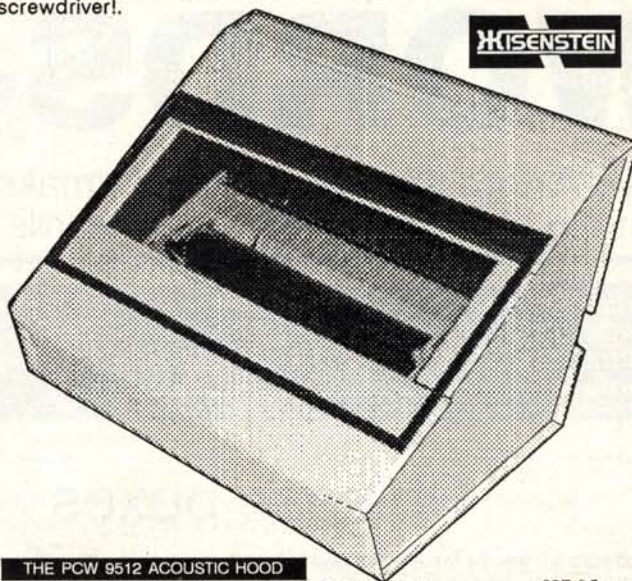
Hire of PCW8256,8512,9512 per day ..... £10.00  
Next day courier delivery and collection ..... £20.00

**Hire a PCW and get £10 off your repair!**

## CAN YOU HEAR THE PHONE WHEN PRINTING WITH YOUR PCW9512? HERE IS HOW YOU CAN!

This Professionally moulded PVC padded Acoustic hood is designed to reduce the noise of your PCW9512 Printer. As well as match your PCW. It comes in two formats, Flat Pack "See 8000 PLUS December 1987" and Ready made for those without a screwdriver!.

**ISENSTEIN**

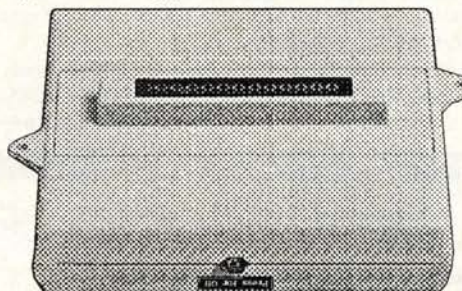


### THE PCW 9512 ACOUSTIC HOOD

AS9501 (PCW9512 Acoustic Hood Flat Pack) ..... £37.95 + vat  
AS9502 (PCW9512 Acoustic Hood Ready Made) ..... £45.95 + vat

**Un-plug the heater will you! ....Sorry wrong one!  
too late your work has all been lost! ....or has it?**

Fitting a Battery Back Pack to your PCW is like taking out insurance, because if the mains power should be turned off or just drop for a fraction of a second while you are typing. The batteries in the back pack stop charging and keep your PCW memory alive. Thus saving your hard typed work in memory. Also built into the Battery Back Pack is a beeper which beeps for a few seconds to tell you that the mains power has gone! After all you could just be turning your PCW OFF!



IS8901 Battery Back Pack ONLY ..... £39.95 + vat

**ISENSTEIN**

ISENSTEIN COMPUTER SYSTEMS  
UNIT W11  
CHESTER ENTERPRISE CENTRE  
HOOLE BRIDGE  
CHESTER CH2 3NE

**ISENSTEIN**

TEL. 0244 320240 / 312986

Phone Our 24 Hour Hotline Now!



**Please Add VAT To All Prices**

**Goods above £30.00 P + P free.**

**Goods below £30.00 please add £2.50 P + P.**

**Official / Trade / Government Orders Welcome.**

**All prices are correct at date of going to press.**



# GETTING YOUR WORDS-WORTH

Dave Axford shows you how to make your pages look more stylish with the help of some boxes, a few words and, last but not least, Stop Press.

Putting comments and text in boxes can make an article look more attractive and readable. The basic technique for creating text boxes isn't going to change from one box to another, so to illustrate the technique, we'll work through the creation of the contents box on the cover of 'Village Voice'.

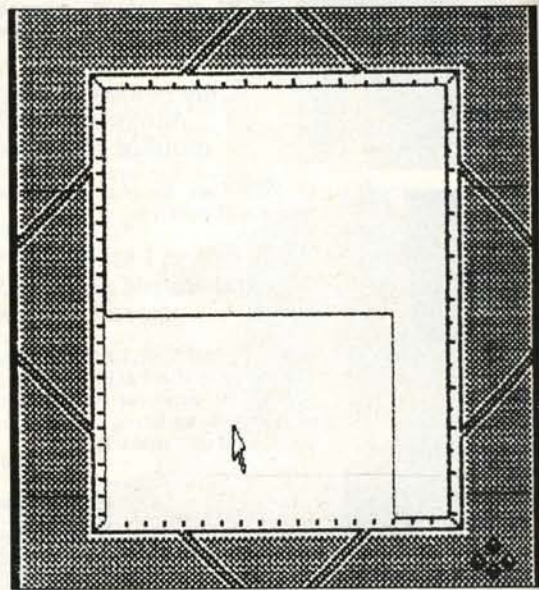
## Chinese boxes

Before creating any box, the first thing we have to know is its exact size. It's unlikely that the size will alter from one issue to the next as the number of pages will remain constant. The text on the front cover of 'Village Voice' is set in two columns and as the box is at the bottom of the first column it needs to be one column wide. Having decided on the size, we create the box using the control panel of Stop Press.

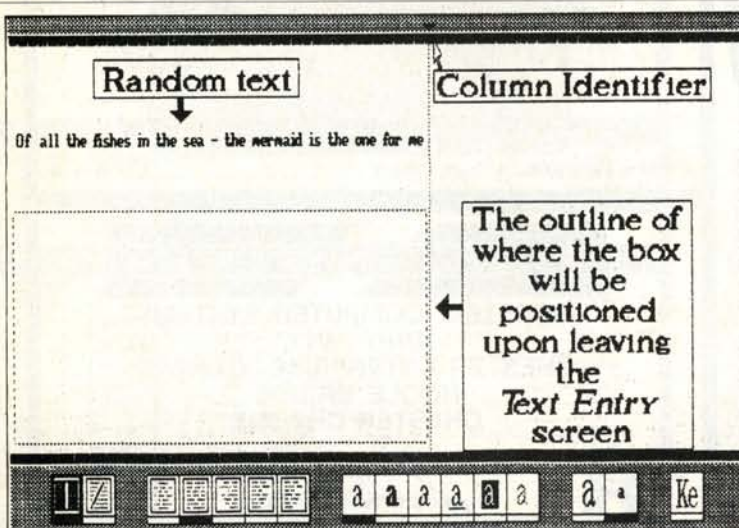
To bring the Control Panel onto the screen hold down MOVE and click EXECUTE; move the cursor (in this case the arrow) to [A - 1 & 2] and click EXECUTE again. Next look at [A 6] to make sure that you have your selected drive showing (this is the drive to which you'll save your data). If it isn't the correct drive letter, then place your cursor over the letter and click EXECUTE which will toggle A B or C. Follow this with CANCEL. What you have done is to select your default drive to which you're going to save your page.

Quickly click MOVE and a Page Access Window (PAW) will appear. This is a miniature version of your page. The square on the page indicates the canvas area that you are working on. Move the canvas to the bottom left of page by holding down MOVE and moving the cursor.

Click CANCEL and you have a blank canvas in the correct position. Now we need to type in some random text on the page so that we can get a reference for the width of the box. To do this, bring up the Control Panel again and click the left arrow icon at [E 5]. This will make the number 3 show as 2, the number of columns of text on your page.



The Page Access Window of Stop Press shows you not only what you have on the page but exactly where you're working on it. Since the screen of the PCW isn't large enough to show the whole page at once, this is a very useful facility.



Using some random text to set the size of the box for the contents page and actually creating the box and its shadow. The other boxes with pointers in the picture are just showing off.

cursor where you want the shadow to be and click. It's as simple as that to create your box. Now we can erase the unwanted text by calling up the Control Panel again and clicking [L 4]. Place the cross wire cursor over the top left of text and bringing it across to bottom right, click, and the text disappears.

## Text-derity

Next click [E - F 1] which gives us the Text Editor screen. At the bottom of the screen there are some icons standing on little boxes, some of which are painted black to indicate that it is the default condition.

Click your cursor over the first icon box which turns the Column Indicators (CID's) on; next click the justified text icon (fourth), the normal lettering icon (eighth) followed by the small character icon (fifteenth). Make sure the kerning icon is off at the end.

Now move the cursor to the top left of the canvas, click, and type in a line of text (anything you like) until it word-wraps then click CANCEL. Call up the Control Panel and click [G 4]. Place the vertical cross wire cursor on the left hand side of the text and the horizontal one about halfway down the screen. Click, and move the cursor to the right hand side of the text and down to about a centimetre from the bottom of the screen and click again.

The box is now created but don't click CANCEL just yet because you can now move a copy of the box to form the shadow; move 6 pixels to the right and 3 pixels down with the cursor and click, now you can CANCEL. Call up the Control Panel and click icon [L 4], click the cross wire cursor inside the top left and again inside bottom right of the box to erase the unwanted lines.

Nearly there now; access the Control Panel and click [I 1]. Put the cursor where you want the shadow to be and click. It's as simple as that to create your box. Now we can erase the unwanted text by calling up the Control Panel again and clicking [L 4]. Place the cross wire cursor over the top left of text and bringing it across to bottom right, click, and the text disappears.



# Cursor words

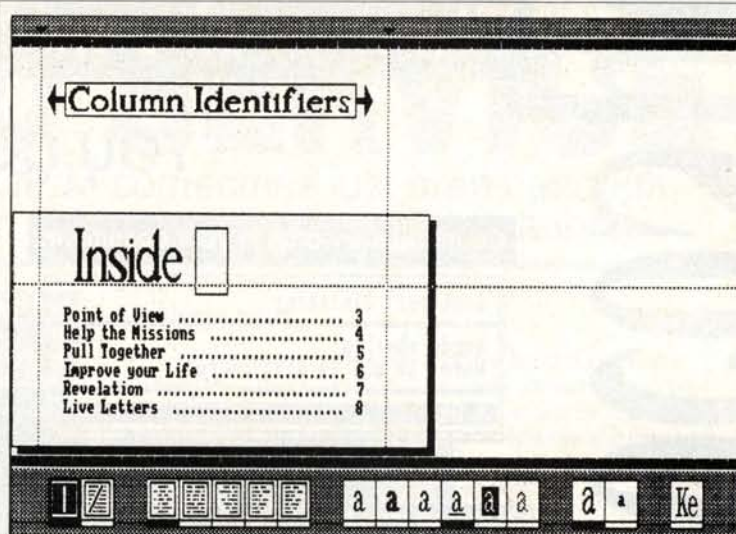
We now need to enter the Control Panel again and put the cursor over [F 5]. Click and the figure 2 will be replaced with a 3. Click [E - F 1] to get the Text Editor screen again.

Move the cursor over one of the CID arrows at the top of the screen, holding down MOVE to drag the CID to about a centimetre inside the left hand edge of the box. Do the same with the other CID only this time moving it to the opposite side of the box.

Now move the cursor (a small square) to where you want the body text to begin - about a third of the way down. Click the cursor and type in the text. When you have completed this task click CANCEL.

The next step is to write the title, underlined and in bigger letters. Click the big character icon at the bottom of the screen (fourteenth from left). This time we shall centralise the heading by selecting the third icon and then click the character with the line underneath (eleventh).

Move the cursor to the inside top of box where the title is to be and click. Type it in and click CANCEL to leave the Text Editor. Now that the contents box is finished you may find the text isn't quite centralised. No problem - it can be moved. Call up the Control Panel and click first [D 6] then [C 1]. Put the cross wire cursor over the top left of the text and bring them across to the bottom right of the text. Click and move the cursor (which is now the size of your portion of text) into the middle of your box. Click and it should be perfect! Save to disc by calling up the Control Panel and clicking [A 5 - 6]



Take a look at the final result - a smart-looking addition to any page. The Contents Box is complete with title and the list of current goodies. Now let's be honest, that really wasn't so difficult was it?



## Advance planning

A flatplan is a miniature representation of each page of your publication. It is vitally important that you create a flatplan no matter what the size of your newsheet or magazine as without one you will end up with a poorly structured publication.

When designing your flatplan, remember that facing pages need to be treated as pairs for design purposes to keep things balanced. Professional magazines have odd number pages on the right, but in our example you would treat pages two and three as a pair and so on.

It is advisable to design a flatplan template drawn to scale using STOP PRESS and store it on disc - it will save a great deal of time in the preparation of future issues.

Enter the main title of your magazine in the position in which you will place it on the front cover. Draw boxes to scale for the titles and pictures; this will give you a true representation of where everything will be placed on the page.

After the title and any pictures are placed in their correct position, it is then possible to work out how much copy is required to fill it. A good deal of thought is needed when deciding where to put your regular items like news, letters, or even crosswords as they should stay there once you've decided on the flatplan. Readers like to know where to find regular features.

### Next Month

In the final part of this series, Dave Axford discusses graphics in Stop Press: how to get them and how to create them - don't miss it.



# LocoScript 2 & LocoSpell

**Just using the LocoScript which came with your PCW8256/8512? Then you're missing out...**

**YOU COULD BE :**

## Counting the words in your documents

|                             |    |
|-----------------------------|----|
| LocoSpell finishing         |    |
| Words checked:              | 95 |
| Words to add to dictionary: | 0  |
| ▶ OK                        |    |

## Using a faster better printer

|          |  |
|----------|--|
| Printer  |  |
| MATRIX   |  |
| ✓ LQ3500 |  |
| FX80     |  |
| D630     |  |

## Spending less time editing

|                         |      |
|-------------------------|------|
| ▶ Find page             | ???? |
| End page here           |      |
| Last line of page       |      |
| Keep current line with: |      |
| ?? lines above          |      |
| ?? lines below          |      |

## Checking your spelling and typing automatically

|                             |  |
|-----------------------------|--|
| Stopped at: mistake         |  |
| Replacement: mistake        |  |
| ▶ Use suggested replacement |  |
| Replace and then edit       |  |
| Edit this word              |  |
| Consult dictionary          |  |
| Ignore this word            |  |
| Mark this word correct      |  |
| Add to user dictionary      |  |

## Having a choice of print styles

|               |  |
|---------------|--|
| Character Set |  |
| ✓ Standard    |  |
| Sans serif    |  |
| For printer   |  |
| MATRIX        |  |

LocoScript 2 is the improved word processor for your PCW – it's faster, easier to use and gives a better printout. LocoSpell for LocoScript 2 checks and corrects spelling: use it to spot your typing mistakes and count your words. LocoScript 2 works with all your existing documents, so there's no need to re-type anything! ...

We could go on, but there's a 16 page detailed leaflet explaining the benefits of the whole LocoScript 2 family. If you're not already convinced write to Katy Buchan at Locomotive Software and ask for a copy. LocoScript 2 costs £24.95, LocoSpell costs £19.95 – BUT BUY THEM TOGETHER AND SAVE £10.

Please send me the following:

FOR THE AMSTRAD PCW 8256/8512

|                             |        |                          |
|-----------------------------|--------|--------------------------|
| LocoScript 2 & LocoSpell    | £34.90 | <input type="checkbox"/> |
| LocoScript 2                | £24.95 | <input type="checkbox"/> |
| LocoFile                    | £29.95 | <input type="checkbox"/> |
| LocoMail                    | £29.95 | <input type="checkbox"/> |
| LocoSpell                   | £19.95 | <input type="checkbox"/> |
| 24 Pin Printer Drivers Disc | £24.95 | <input type="checkbox"/> |
| Printer Drivers Disc        | £19.95 | <input type="checkbox"/> |

Please send me details of the LocoScript 2 family ☐

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

☐ I enclose a cheque for TOTAL £ \_\_\_\_\_

☐ Please charge my Access/Visa card

EXP Date \_\_\_\_\_

Signed \_\_\_\_\_

Send to Katy Buchan at:



**LOCOMOTIVE SOFTWARE**

Allen Court, Dorking, Surrey, RH4 1YL

Note: All prices include VAT and UK postage

TEL 0306 740606

FROM LOCOMOTIVE SOFTWARE – THE CREATORS OF LOCOSCRIPT ON YOUR PCW



# SECOND SERVICE

The built-in commands of CP/M sometimes just aren't enough, so they can be fitted with extensions – like drain cleaners.

If you aim to become a PCW power user then you will find that the built-in commands just don't give you the information you need. For you Digital Research have included COM files with the same names which sit there on disc waiting to add a little something to these oft used commands; just waiting to increase your control of the machine.

These programs are just a few of the utilities that can make using the PCW easier, make it more flexible, or allow you to do things with the PCW that you might not have known could be done.

The commands DIR, ERA, REN and TYPE are all used fairly frequently, apart from DIR, which can sometimes appear to be in use every few minutes. Useful as they are, there must have been times when you wished they would do just a little bit more. Well, here's how to make them do just that.

To use these utilities they have to be on the default disc drive. Either that, or you must set up a drive search path with SETDEF, a process we described last month and on which we will elaborate this month.

We'll start straight away with perhaps the most useful - the DIR extensions. The normal DIR display simply shows the files in the order they appear in the disc directory. You're given no indication of the size of those files. And even if you use the wildcards to specify the kind of file you want to see it can be hard to find what you're looking for. For example, you may want to find files you've marked Read Only.

As soon as you give DIR one of the options (inside the square brackets) that the built-in command can't handle, the COM file is automatically invoked; if it can't be found, you get a message **DIR.COM REQUIRED** to let you know that CP/M can't find it.

Assuming it is found, the requisite action is carried out. The first thing you'll notice is the extra information on the screen, but the best thing is that the directory is now sorted alphabetically, a great improvement.

## Information retrieval

Some of the information on the screen after a DIR may not appear immediately sensible, so we'll just go through it. Let's assume you've used the **[FULL]** option so that everything to do

## Listings plus

The following options can all be added to the DIR command provided that DIR.COM is available on the default drive or on a path defined using SETDEF. Only the first square bracket and two letters are required on the command line and they needn't be in capitals. As you can see, there is more to know about files on disc than might at first appear.

|               |  |
|---------------|--|
| [ATT]         | shows current file attributes  |
| [DATE]        | shows date and time stamps   |
| [DIR]         | shows only files with DIR attribute                                    |
| [DRIVE=ALL]   | shows files on all logged drives                                       |
| [DRIVE=(A,B)] | shows files on specified drives  |
| [DRIVE=A]     | shows files on specified drive   |
| [EXCLUDE]     | shows files that <b>don't</b> match those specified                    |
| [FF]          | if [Alt]p is pressed for printer output, this option sends a form feed |
| [FULL]        | shows everything that can be shown                                     |
| [RO]          | shows files with Read Only attribute                                   |
| [RW]          | shows files set to Read Write  |
| [SIZE]        | shows sizes of files in Kilobytes                                      |
| [SYS]         | shows system files   |
| [USER=ALL]    | shows files in all user groups   |

## WRITER BLOCK

In a simpler age (some say the Golden Age of computing) there were only two kinds of files, Binary files (full of machine code) and text files (which might have been either source code or documentation). In those halcyon days all good text files were Ascii files and all could be read with TYPE.

Extensions to the TYPE utility were legion. They included programs that allowed files to be TYPED backward as well as forward, and the TYPE.COM program, whose main use is to allow bulk TYPEing of files using wildcards. It's sad to say that few word processors produce such nice clean text these days. LocoScript files can't be TYPED at all and even Protext files will all type to the same line - very irritating.

This facility is now only of real use to programmers, who have to produce decent Ascii files for their assemblers and compilers (PyraDev victims excluded). For those who need to know, the TYPE extension is called into action simply by specifying a wildcard in the filetype:

**TYPE A:\*.ASM**, for example, TYPEs all ASM files on A to the screen.

Sorting Directory...

Directory For Drive A: User 0

| Name     | Bytes | Recs | Attributes | Prot | Update         | Access         |
|----------|-------|------|------------|------|----------------|----------------|
| ADDFILE  | PS    | 46k  | 366 Dir RW | None |                |                |
| DIR      | COM   | 16k  | 114 Dir RW | Read |                |                |
| ERASE    | COM   | 4k   | 29 Dir RW  | Read |                |                |
| GRAPL    | BAK   | 2k   | 1 Dir RW   | None | 12/15/82 01:22 | 12/15/82 01:22 |
| GRAPL    | DOC   | 2k   | 1 Dir RW   | None | 12/15/82 01:22 | 12/15/82 01:22 |
| NEWGRAB  | COM   | 2k   | 5 Dir RW   | Read |                | 12/15/82 00:16 |
| NS       | COM   | 12k  | 92 Dir RW  | Read |                | 12/15/82 01:15 |
| OPENM    | PS    | 46k  | 366 Dir RO | None |                |                |
| OPENMENU | BAK   | 46k  | 366 Dir RW | None |                | 12/15/82 01:18 |
| OPENMENU | PS    | 46k  | 366 Dir RW | None | 12/15/82 01:18 | 12/15/82 01:18 |
| PACMAN   | PS    | 46k  | 366 Dir RW | None |                | 12/15/82 00:41 |
| RACER    | PS    | 46k  | 366 Dir RW | None |                |                |
| SETDEF   | COM   | 4k   | 32 Dir RW  | Read |                | 12/15/82 00:16 |
| SLIDE    | PS    | 46k  | 366 Dir RW | None |                |                |
| STAR1    | PS    | 46k  | 366 Dir RW | None |                |                |
| STAR2    | PS    | 46k  | 366 Dir RW | None |                |                |
| STAR2    | SCR   | 24k  | 181 Dir RW | None |                | 12/15/82 01:24 |
| TYPE     | COM   | 4k   | 24 Dir RW  | Read |                |                |

Total Bytes = 484k Total Records = 3773 Files Found = 18  
Total 1k Blocks = 478 Used/Max Dir Entries For Drive A: 74/ 256

DIR [FULL] is the all-purpose version, providing more information than a British Rail timetable.



with the files has been shown. There will be a row of underlined headings across the screen, the first of which is **Name**. This, as you might suspect, is the name of the file.

The second heading is **Bytes** which gives you the size of the file in Kilobytes. It refers only to the minimum block size the disc can hold, so while **A** discs show any number of kilobytes – since **A** discs can have files in multiples of 1k, **B** discs always show even numbers of kilobytes – since they have a minimum size of 2k.

The next entry is **Records** and you may not have come across it before. It gives you your file size in 128 byte logical records, and is thus a far more accurate measure of their true size. This can be useful when trying to find which version of a file is the latest (the one you've added something to, or cut down).

**Attributes** are those things that decide whether or not your file is Read Only, Read/Write, System or whatever. DIR can't alter this state of affairs but it can tell you about it.

The list goes on to tell you whether or not the file is protected and finally, if you are in the habit of datestamping your files, when they were created and when you last updated them (this, too, can be altered as you'll see when we get to SET). And for anyone working with large quantities of files that change a lot, like letters, the ability to see the dates on them is extraordinarily useful.

## I name that file

The extended version of RENAME allows files to be renamed in batches, that is to say, more than one at a time. There are no options allowed, you simply type in a pattern for the files you want changed and another for how you want them to look afterward. Let's say you write a lot of letters, those sent

out this month all have a filetype LET but all previous correspondence has a filetype OLD so that DIR \*.LET lists only current correspondence. At the end of the month the command:

```
RENAME
*.OLD=*.LET
```

will change all the letters in one fell swoop. As a bonus, if the name the file will be changed to already exists you're prompted by CP/M; it asks if you wish to delete the existing file.

If you enter the command RENAME on its own then like TYPE you enter an interactive mode where the utility will prompt you for the filenames; if in any doubt about which way around the names should go (and we all get confused occasionally) this is the way to do it.

The final command we're going to look at this month is ERASE, the command that breaks hearts. At one time or another everyone has typed **ERA \*** and confirmed it automatically – having completely forgotten which drive they're logged on to. It can really ruin your whole weekend. Even if you intend to clear the disc – and erasing everything is a much faster way of clearing a disc than reformatting, there just might be one or two files you'd like to keep. The answer, of course, is to type:

```
ERASE *.* [CONFIRM]
```

which will call up the transient version for the ERASE command and prompt you for each and every file. This allows you that vital moment of reflection before casting it into oblivion. ■

```
M>erase
M:ERASE COM
Enter filename: a:graph1.bak
A: IRAPL .BAK (Y/N)? y

M>erase a:*. *[confirm]
M:ERASE COM
A: DIR .COM (Y/N)? y
A: ERASE .COM (Y/N)? y
A: NEWGRAB .COM (Y/N)? y
A: NS .COM (Y/N)? y
A: SETDEF .COM (Y/N)? y
A: TYPE .COM (Y/N)? y
A: YPENMENU .NEW (Y/N)? y
A: SLIDE .NEW (Y/N)? y
A: RACER .NEW (Y/N)? y
A: PACMAN .NEW (Y/N)? y
A: OPENM .AS (Y/N)? y
Not erased, Read Only
A: STAR2 .NEW (Y/N)? y
A: STAR1 .NEW (Y/N)? y
A: STAR2 .SCR (Y/N)? y
A: ADDFILE .NEW (Y/N)? y
A: OPENMENU .BAK (Y/N)? y
A: SETDEF .SCR (Y/N)? y
A: IRAPL .DOC (Y/N)? y
```

Confirming the selection of each file takes the anxiety out of clearing discs.

## Easycopy

The TYPE extension provides a quick and easy way to get a printout of a TYPEable file. Press [Alt]p and then give the command **TYPE FILENAME.DOC[NO PAGE]**. You will get the whole document with none of those **Press RETURN to Continue** messages appearing on the printout.

```
M>rename a:*.new = *.ps
```

Rename won't alter protected files

```
OPENMENU .NEW=OPENMENU .PS
SLIDE .NEW=SLIDE .PS
RACER .NEW=RACER .PS
PACMAN .NEW=PACMAN .PS
ERROR: Not renamed, OPENM .PS read only.
STAR2 .NEW=STAR2 .PS
STAR1 .NEW=STAR1 .PS
ADDFILE .NEW=ADDFILE .PS
```

## SETDEF EAR

This is the utility which can make most difference to the way your system looks and feels. SETDEF tells the PCW how it should work under CP/M. For example, many programs produce temporary files, not only word processors but a lot of programming utilities, business packages and so on. These would normally be kept on the default drive (the one defined at the prompt).

SETDEF can tell the system to keep temporary files on drive M, thus speeding up processing and avoiding the risk of filling up a nearly full disc with files you don't know about or want (some programs will fail if they can't write their temporary files – WordStar for instance). The command is:

```
SETDEF [TEMPORARY=M:]
```

An irritation, albeit minor, is being told by your system that a file doesn't exist – the famous **FILENAME?** response – when you've merely forgotten to tell it which drive the file is on. SETDEF can force the PCW to look on all the logged-in drives before giving up, a much better idea. To do this type:

```
SETDEF M:,A:,B: but include the B only if you have a B drive.
```

A final treat is being able to run SUB files as if they were COM files. Instead of having to type SUBMIT GOFIL you can simply give the command GOFIL on its own and have the whole thing go merrily ahead. We can do that with SETDEF:

```
SETDEF [ORDER=(COM,SUB)].
```

SETDEF affords one more piece of information. It will confirm the name of the file you've asked for. This isn't really very useful but it can be nice to know that it really is doing the right thing. To do this use:

```
SETDEF [DISPLAY].
```

All of these options can be combined in a single line if you like and you'll find most of them in the supplied sample file, PROFILE.ENG. Run as the first command of the day and you will find the PCW more cooperative from then on. The line should be:

```
SETDEF M:,A:,B: [ORDER = (SUB,COM) TEMPORARY = M: DISPLAY]
```

```
M>setdef m:,a:,b:[order=(sub,com) temporary=m: display=on]
```

Drive Search Path:

```
1st Drive - M:
2nd Drive - A:
3rd Drive - B:
```

```
Search Order - SUB, COM
Temporary Drive - M:
Program Name Display - On
```

When SETDEF is invoked, it takes the trouble to tell you the state of play

## NEXT MONTH

### Get set, go

We've mentioned SUBMIT, a utility often greatly under-used. It can automate a surprisingly large number of activities and effectively give you complete new commands.

The SET utility provides protection, disc names, datestamping and other goodies to make working with disc-based files more efficient. Read all about these two powerful utilities right here – next month.



# The best PCW software from Arnor

## Word Processing

### PROTEXT Word Processor

£59.95

Protext is now firmly established as the alternative to Locoscript.

All the features you would expect from a good word processor - many text editing commands, print commands, spell checking and mail-merging. The refinement and thought that has been put into the program - logical keystrokes and commands, clear layout, speed and power ... all go towards making Protext ideal for the novice or the experienced user.

- \* On-screen help \* Typewriter mode \* Insert or overwrite typing mode \*
- \* Word count \* Undelete feature \* Move/copy/delete/print blocks of text
- \* Box manipulation \* Configuration \* Personal dictionaries \*
- \* Exec files \* Two file editing \* Keyboard macros \* File conversion \*
- \* Comprehensive Find & Replace \* Foreign languages and accents \*
- \* Program editing mode \* Proportional printing, right justified \*
- \* Conditional printing and loop constructs \* Print any number of copies
- \* Works with any printer \* Calculator \* Print labels \*
- \* Use the maths/string functions to produce personalised invoices etc \*
- \* Compatible with PCW 9512 \* Enhanced spelling checker - larger dictionaries, dictionary on drive M or on program disc \*
- \* Many improvements based on customer feedback \*

*"Protext deserves to be the system by which all other word processors are judged ... a superb product."* YOUR COMPUTER

*"The great strength of this package is its ease of use"* CWTA

*"Protext is the solution to all Locoscript's drawbacks"* PCW

*"Makes Locoscript look like a snail"* 8000 PLUS

*"Simply the best word processing program to date for the PCW... Locoscript is effectively dead"* PUTTING YOUR AMSTRAD TO WORK

### PROTEXT FILER

£24.95

This invaluable program will keep your address lists or other datafiles in good order. Includes: datafile management from within Protext; extremely flexible file sorting program; label printing and mailmerging using the datafiles. Send SAE for full details.

### PROTEXT OFFICE

£34.95

Invoice printing program as used by Arnor. Easily configurable for your own requirements. Works from within Protext. Produces invoices/credit notes/delivery notes/statements. Includes Protext Filer. Send SAE for full details.

### PROSPELL Spelling Checker

£29.95

Typing and spelling errors are simple to make and frustrating to miss. But by using Prospell, you can produce documents that are error-free. Prospell is an automatic spelling checker that points out any odd words or dubious spellings.

- \* Works with Locoscript 1 and 2, WordStar or any ASCII file \*
- \* 33000 words \* room for thousands more \* up to 2000 words/min \*
- \* Find words and anagrams - ideal for crosswords \*
- \* Compatible with PCW 9512 \* Dictionary on any disc/drive incl. M \*

*"Fast, efficient, easy to use"* YOUR COMPUTER

*"Anyone looking for a spelling checker need look no further"* AU

### POCKET PROTEXT

£29.95

Budget price version of Protext without spelling checker, mail merge and box mode. Now compatible with PCW9512.

*"Just as powerful as the full Protext and at a very attractive price"* 8000 PLUS

## CP/M Programming

### BCPL

£24.95

Flexible, fast, general purpose programming language. Extensive set of I/O libraries including access to CP/M routines. Example source files supplied, including full screen editor and all the libraries. 60 page manual covers the language and gives details of the libraries.

*"Easy to use, yet both flexible and powerful"* CWTA

*"Arnor's clear, concise manual will have you programming confidently very rapidly"* AMSTRAD ACTION

### C

£49.95

Complete C development system now available at new low price

- Optimising compiler - Full implementation of K&R standard -
- Floating point arithmetic - 32 and 16 bit integer arithmetic -
- I/O and maths libraries - Conditional compilation - File inclusion -
- Macros - Linker accepts C and assembler (with Maxam II)
- Stand alone generator produces COM files
- \* Protext compatible editor: \*
- Fast and easy to use - Two file editing -
- On screen help - Fully configurable - Powerful find and replace -
- Keyboard macros - Exec files - Compile directly from editor -

*"Streets ahead in terms of programming power"* AMSTRAD ACTION

*"In typical Arnor fashion, they've taken their time and got it right"* AMSTRAD COMPUTER USER

### MAXAM II

£49.95

Complete CP/M machine code development system at new low price

- \* Macro assembler \* nested conditional assembly \* file inclusion \*
- \* textual substitution of macro parameters \* repeat loops \*
- \* Full expression evaluation \* Error listing to screen/file/printer \*
- \* 8080 mode \* Linking facility \* Create object files for use with C \*
- Window based monitor, with:
- \* line assembler \* disassembler \* memory editor \* find string \* relocate
- \* move memory \* compare memory \* fill memory \* bank switching \*
- \* symbolic debugger \* single stepping \* set memory limits for stepping
- \* stack checking \* conditional breakpoints \* trace mode \* edit registers
- \* Editor is program mode of Protext (as for C, above) \*

*"Maxam II - now the best gets even better"* CWTA CPC

*"Maxam II is stunning ... the most complete and competent programming package around. Simple, speedy and sophisticated"* AMSTRAD ACTION

### Special Offer:

Buy one of Maxam II or C for £49.95, and the other can be yours for just £20. Remember that Maxam II and C can be used together to produce hybrid C/assembler programs.

### SUMMARY OF PRICES:

|                       |        |                          |        |
|-----------------------|--------|--------------------------|--------|
| SUMMARY OF PRICES:    |        | Prospell                 | £29.95 |
| Protext               | £59.95 | Maxam II                 | £49.95 |
| Pocket Protext        | £29.95 | C                        | £49.95 |
| Protext Filer         | £24.95 | Maxam II and C           | £69.95 |
| Protext Office        | £34.95 | BCPL                     | £24.95 |
| Protext Tutorial disc | £7.00  | Prowort (German Protext) | £59.95 |

All programs work on Amstrad PCW8256/8512, PCW9512, CPC6128  
Orders normally despatched on the same day they are received.

Protext is also available at £99.95 for IBM PC,XT,AT,PS/2 and compatibles, Atari ST and Commodore Amiga, and requires a minimum of 512K RAM.

Releasing your Amstrad's potential ...



Arnor Ltd (EP), 611 Lincoln Road, Peterborough, PE1 3HA. Tel: 0733 68909

All prices include VAT, postage and packing. Access/Visa/Cheque/Postal Order.

Fax: 0733 67299





# OUT OF

Have PCW, will travel? Sharon Bradley sets

**Terry Reynolds is the proprietor of one of the biggest commercial travel fleets of its kind in the world. Despite all indications to the contrary, however, it's not a travel company like other travel companies. Chalfont Line, based in Perivale, Middlesex, arranges national and international holidays for the disabled. Despite their success, though, the company has only been computerised for eighteen months; we paid them a visit to find out just how the PCW is shaping up in its role as an unobtrusive yet indispensable business partner.**

remained till now, the company going from strength to strength. With Terry at its helm, the Line owns and operates their own coaches on all European holidays. The drivers and crew of Chalfont's Liberator coach fleet are all trained and employed by the company, unlike most tour operators who tend to contract-hire their services. Although the Perivale office is Chalfont's only office in the UK, the company does have agents who represent them abroad.

## Golden Retriever

Sage Retrieve costs £70 and is available from Sagesoft on 091 2131555. Because it insists on stretching itself on to the B drive, it won't be of much use to 8256 users, but it is a very versatile, high-powered package with sophisticated Sort and Select commands. SuperCalc 2 is available from Amsoft/Sorcim (091 5108787) for £49.95. See page 43 for further details.

Chalfont Line first began operating a specialised transport service in 1971. Under the auspices of the local authorities, Terry headed a fleet of 25 mini-buses operating a shuttle service for the wheelchair-bound and infirm. 'There was a special school in the borough at that time, and I remember noticing - not without some surprise - that none of the transport available had had the foresight to make any provision for handicapped travellers,' recalls Terry. 'Nobody seemed to have heard of ramps let alone improvise them. Having spotted the need for what I had in mind, it was just a question of getting hold of a few more buses.'

In 1979, with the help and encouragement of William Hargreaves (the then head of the Spastics Holiday Programme) Chalfont Line proper, the escort holiday company for the disabled, was born. Hargreaves was duly designated Chalfont's Holiday Consultant where he has

## Strong Persuader

'A garage at Hareford takes care of all our vehicle maintenance,' says Terry. 'What with that, and the business itself, my mother, who was doing all the bookwork manually (well, she might have had a calculator), was having quite a time of it. The sheer volume of paperwork that she had to get through was indescribable.'

Terry, like many others, fell an easy victim to the seduction of the PCW publicity campaign, which in the late summer of '85 launched the 8256 onto an unsuspecting nation; and, again like many others, he found its price a salient attraction. Says Terry, 'I didn't know the first thing about computers, but decided to adopt the same approach I'd used with my video recorder. That basically consisted of flicking through the manual until it clicked. I suppose I do tend to pick things like that up quite quickly - I didn't find the machine too difficult to get to grips with.'

Initially, the company secretary made use of the machine for word processing using LocoScript 1. The next step was to try and wage war on their straggling mailing lists using Sagesoft's Retrieve database. Not only were they able to keep the details of those lists on disc, but the program also allowed them to print out - without any hassle - name and address labels.

## Let me count the ways

Sage Accounts, a sister program, proved disappointing when it came to computerising the company's book-keeping system. 'It was just too slow for what we wanted to do,'



Terry, together with accountant Ken Ritchie, feeding payroll details into Sage Retrieve.

## Free the Spirit

Chalfont Line's Liberator coaches look just like any other on the road. They are however specially-equipped with, among other features, a side-loading lift, air suspension, a special loo and a video system. All of the coaches used by Chalfont throughout the world conform to the same design.



# BOUNDS

ail to visit a tour company with a difference.

## Fresh Fields

'The main thing to remember when faced with a new piece of software,' says Terry, 'is to ask yourself exactly what you want to get out of it? Make sure you drive it rather than the other way round. Early encounters with Sage Retrieve, for example, resulted in datafiles with fields that were totally irrelevant or datafiles with crucial fields left out.'

says Terry. 'We need to access accounts and retrieve data quickly. That means feeding in an invoice number and getting the relevant information up on the screen relatively quickly. Being already so pleased with Retrieve, we decided to stick with it and see if it could help us with this requirement too. It worked remarkably well.'

The upshot of all this is that Sagesoft's Retrieve alone keeps track of aspects of the company's business as varied as petty cash, payments (standing orders and so on), receipt of payments and the sales ledger.

The arrival of the PCWs (we spotted at least three of them) has also saved Terry money by virtue of the fact that he doesn't need to employ as many people as he did before. 'The software takes care of all our specialist needs itself,' he says. 'All we have to do is feed in the data. We are also saving a significant amount of money on our Insurance Premium. Businesses have to take out a special insurance on their books in case of fire or theft; dispensing with the books means we don't have to worry about that any more. It's a small consideration, but still quite an important one.'

Chalfont monitors the progress of their accounts using SuperCalc 2. As Terry points out, it's excellent for cash flows and cash flow forecasts; working out holiday costings is also a refreshingly painless operation now, simply because SuperCalc's famous 'what if?' hypotheses are so well-suited to arriving at sensible conclusions in the face of constantly fluctuating exchange rates. Gone, it would seem, are the days of buckled pen nibs and sweat-sodden note-pads.

## Copy it – don't lose it!

Not surprisingly, Chalfont has learnt to make security back-ups of all their discs every day. Not only does this protect their data from any gremlins that might be lurking in the works (and let's face it, we've all experienced those at some time or another), but it also means that in the case of

a break-in (the company's suffered five of those already), nobody is going to be able to run off with months' of irreplaceable grafting. Chalfont also make a point of using passwords that are changed on a regular basis for that very reason.

Terry is certainly very pleased with the contribution that the trio of PCWs has made to his business. 'We've been using them for a year and a half now,' he says, 'and in that

## In Good Company

Chalfont holidays are group holidays that are inclusive of all necessary help. This means that experienced care-staff are supplied to look after the disabled clientele whatever the severity of their disability. Having said that, the company won't turn away the able-bodied half of a couple who want to go on holiday together. Chalfont own and operate their own specially-equipped coaches and will only stay at hotels and resorts that they have selected as being particularly welcoming and accommodating.

During the course of booking a holiday, however, an application form must be filled in by each prospective holidaymaker in which the details of the extent of the incapacity are recorded so that optimum care can be provided. That includes finding out things like the type and frequency of medication required and the degree of general independency that can be assumed before departure.

Precisely because the company keeps such a wealth of confidential information on all of its clients, they have to be registered under the Data Protection Act.

The longest holiday Chalfont organises is a three-week tour of New Zealand, although two to three SRNs or SENs always accompany each trip.

All the staff are hand-picked and then trained by the company. The coach drivers usually start off on small transport and then graduate – with training – on to the larger Liberator coaches. They're taught to drive in that special way needed when you've got wheelchair bound passengers on board. Although they're licenced by the Department of Transport as Public Service Vehicle drivers, they only deal with transport for disabled people throughout the year. 'It's caring, vocational work,' says Terry, 'but never patronising.'

Terry says the company succeeds primarily because of the attitude of the staff who work there: 'We consider ourselves fortunate to be able to earn a living by being part of the enabling process,' he says. 'Strange though it may sound, we don't want to become a massive corporation. The minute we lose the personal touch, it just won't work anymore.'



Terry and Dennis (left), who organises all of Chalfont's transport, hard at work in their Perivale office: 'Our next initiative,' says Terry, 'is to organise an incoming holiday programme for visitors to the UK: a two-week tour of England plus a week spent in London.'

time I'd say that they've saved us something in the region of £12 – £14,000.'

They've also made the company more aware of the image they project to their customers and the various financial organisations with whom they regularly have to do business. Even more so with the arrival of the superior quality of daisywheel printout and LocoSpell.

Terry is perhaps typical of many PCW-users in that he regards his machines as tools that enable him to do his job more efficiently – nothing more. Getting the most out of the software that he feeds into its drives is therefore his primary concern: 'It's the tail not the dog that matters to me,' he laughs. A box of wires it may be, but Terry would probably be the first to appreciate its worth as a tool in the capable hands of a man who must, at the drop of a hat, be able to climb into the shoes of a businessman, nurse, coach captain or diplomat – sometimes all at the same time. ■

## Wheels of Fortune

It was 1981, the International Year of the Disabled, that proved to be the watershed as far as recognising the needs of the disabled was concerned. As a result of that, Terry now does business with hoteliers who generally want to be accommodating – even if its only in providing wheelchair ramps,' he says. 'In the States, they had to be dragged, kicking and screaming, to the point we've now reached over here.'



# BUSMAN'S

Mike Gerrard shows how those two wonderful



Any area of writing is hard to break into, requiring a mix of talent, luck and dogged determination. Travel writing is harder than most, mainly because there's such intense competition. The average travel writer, for instance, is unlikely to be able to produce an article that's suitable for the specialised pages of 8000 Plus, yet any competent 8000 Plus writer should be able to produce a readable travel article. So how do you break into the tough world of free holidays?

Just as software companies send out review copies of their products, travel companies offer free trips to the editors of travel sections. If the travel editor thinks it's something of interest to his readers then he may take up the offer. He might go himself, or he can easily turn to any of the many staff writers, some of whom may have a particular knowledge of the place being visited. A free trip in exchange for a few hundred words? Well, would you turn it down? Travel editors, incidentally, are just as likely to be female as male, but I refer to them as 'he' for convenience.

So what about you, the freelance? Well, there's also a lot of competition here, not only from full-time travel specialists but also full-time and part-time writers in other fields, and also people who may only write one article a year, or even one in their entire life – and there's a fair chance it'll be about their once-in-a-lifetime trip to some exotic location.

Despite the competition, the opportunities are there, if you go about it in the right way. The number one rule, as with any kind of writing, is to study the markets you're aiming at, although I won't waste too much space elaborating on what should be second nature to anyone who regards themselves as a writer. Don't send 2000-word articles to someone who only publishes 800-word pieces. Don't send speculative submissions to magazines who don't run travel articles in the first place: they're unlikely to change their policy just for you. Don't send the same type of piece to both The Sunday Sport and The Sunday Telegraph.

## Speculate to accumulate

The best outlets for travel journalism at the moment are the up-market newspapers with their expanded weekend supplements, places like The Guardian, The Independent, The Daily Telegraph, The Times, The

Sunday Times. These all run several pages of travel each week and consequently devour material. Any article you produce hasn't been rejected till it's at least been seen by the travel editors of all of these.

The only way to make that first break is, unfortunately, to submit material speculatively. This is how I started, by writing articles about my own summer holidays and getting a few of them accepted. It needn't be anything exotic, and in my own case I was writing about Greece, which, although I didn't realise it at the time, is one of the most written-about destinations in an already overcrowded field! If you are visiting somewhere unusual, where not many tourists go, it does increase your chances of success – but only if you can write about it well. If you're writing about somewhere as popular as Paris then I wish you luck; you're gonna need it.

If you are planning to write about a trip, whether it's a fortnight in the Himalayas or a weekend in Bognor, do take

One thing which puts me off very much is if an article isn't presented well. You wouldn't believe it in these days of Amstrads everywhere, but people do still send in handwritten manuscripts that are extremely hard to read. The result is that you don't read them. People also send in stuff typed on both sides of the paper, and just don't know the fundamentals of how to present their work properly. This applies to all writing, not just travel, and good presentation shouldn't need emphasising – but it does.

Something else that applies generally, and which I notice particularly as a travel editor, is that most people overwrite, that's one of the commonest mistakes. They put in too much information, everything they can possibly think of to say about a place, and the article just gets lost in this wodge of information. They produce a piece which is what they think a travel article ought to be, but if you read enough travel articles you see that they are not like that at all, they are very much personal accounts. A lot of the skill in travel writing – indeed in any writing – is in paring it down to essentials without losing the flavour of the piece. You must edit down – constantly.

One of the things which people forget is that you have to change your style according to who you're writing for. I wouldn't write the same article for, say, The Sunday Mirror as for The Daily Telegraph, and yet this is what people do. What irritates me is when people don't think who they're writing for. It's obvious they have never read the Telegraph's travel pages and have no idea of the type of article we use. Our travel section is very much about tourism, about people doing enjoyable things on their holidays and their weekends off, and I like the articles to reflect that, to be about people as much as about places, and what I very much don't want to see is the mundane 'First



# HOLIDAY

Weeks in Ulan Bator might pay for themselves

a notebook with you and keep a diary, jotting down information such as the names of churches and villages, odd occurrences, amusing overheard remarks, and noting any conversations you have. Little details like these do make an article that bit different from the mundane rewritten-guidebook approach. Besides, writing up your daily notes is a good excuse for an early-evening drink and a chance to compare the local bars.

## Batteries not included

I bought a Z88 portable computer to take with me on trips, but don't rely on technology. Be sure to have plenty of pens and paper to hand as well. The first time I took my computer out to use it, having stuffed my luggage with spare batteries and even a continental mains adaptor, the wretched thing wouldn't work. It's since been replaced, but on a tiny Greek island or half-way up a mountain, you can't guarantee there'll be a handy branch of Dixon's.

Likewise for camera film. Take as much as you can carry, both black and white and colour slide film. You may prefer colour prints for the family album, but magazines need slides and you have to decide whether you want to take photos to please yourself or to try to please the travel editor. You don't have to submit photos with an article, but if you can then it makes life easier for the editor and can also earn you a little more cash on the side: and justify you charging your photography expenses against your income.

With a little luck you may be able to sell one or two articles, and then you're in a stronger position to think about getting a commission. I've always found travel editors very approachable, and once you have some travel cuttings, you should write with photocopies and find out which will and which won't commission you to do something on the strength of an idea.

## Fair do's

Getting a commission involves a commitment on the part of the travel editor, and some enterprise on your own behalf. If you've shown, for instance, that you know a particular country or area well, then suggest an article covering a place that's seldom visited, or that has an unusual fair or feast once a year, or suggest retracing someone's footsteps, or basing the prospective article round some specific theme, like visiting a city's theatres, or its music festival or whatever. An original angle is far more likely to appeal than a letter saying "Would you commission me to write an article about a weekend in Amsterdam?"

When submitting ideas, you must be prepared for the editor to turn round and say "Fine, 900 words please by the end of next month." Here's where your professionalism will be tested: are you ready to rearrange all your plans and fly off somewhere in the next few weeks? Travel writing isn't done just for the benefit of getting you two free weeks in the sun, so when a suggestion turns into a



## Right of reply



Bernice Davison is the travel editor of the *The Daily Telegraph*, one of several national newspapers with large travel sections, and someone who just happens to have an Amstrad PCW tucked away at home. These are her thoughts on the freelance submissions she receives.

we did this, then we did that' type of article.

Whether I accept a piece depends simply on how good it is, what they're writing about and how they're writing about it. For instance, there is no point in someone sitting down and producing a piece saying what a lovely time they had on their gite in France or in their apartment in Spain; there are far too many articles produced like that every year. That's not to say that you can't write an account of a holiday like that and make it work, but the chances are against it. The account has to be slightly different.

In a way it doesn't matter where the place is: I've had some very boring accounts of people who have done the most exciting things, and yet you can get a really interesting article out of the most ordinary place. It's all down to the skill of the writer.

There is sometimes luck involved too. A piece may arrive on my desk just at the time when I'm looking for something about that particular country or city. It does happen, as does rejecting a piece you might otherwise use if you hadn't just bought a similar one. It doesn't matter about photographs, you don't need to send those in as well, as there are very few people who can both write well and take photos that are good enough for publication. It's useful if the writer can do both, but not essential.

What I don't like to see are letters from people asking me if I'd like to see an article about such-and-such. I can only write back and say "I don't know." I have to see the finished article to judge. You discover quite quickly if they're serious, some you never hear from again, but others will go away and write the article and send it in – and it does sometimes work, I'll buy it. But I have to see the finished piece first if it's someone whose work I don't know.

The number of unsolicited articles I receive varies enormously according to the season. There is a definite bulge in about September-October-November when people come back off their summer holidays and decide they're going to write about it. Then we get dozens of articles every week, very few of which I can use.

I find that I'm increasingly commissioning rather than using unsolicited material, which means that the chances for those articles are decreasing, but there is no other way to get started except to get down to it and write the articles and send them in. People do send me pieces out of the blue with something about them that makes me feel 'Yes, I'd like to use this sometime, it's nicely written, it's very much our market.'



commission it's no good saying "Well I'd like to but I've got my mother coming to stay next weekend, and my passport needs renewing...."

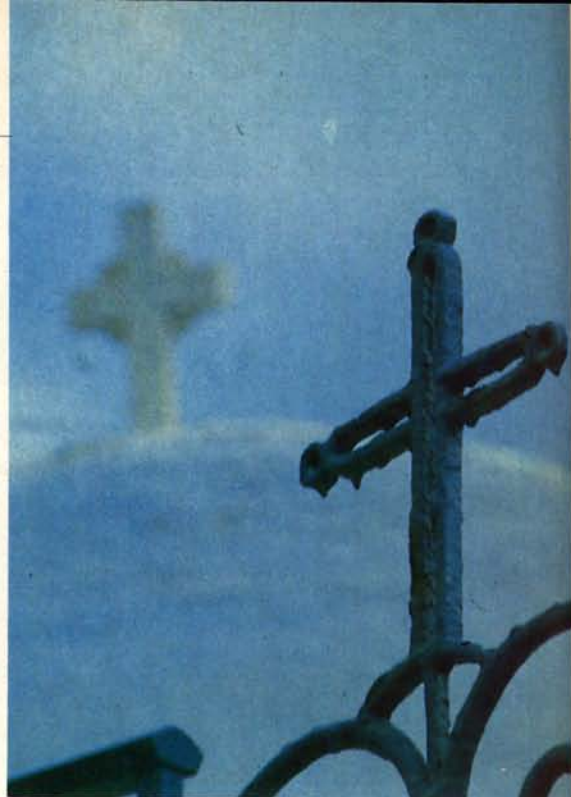
Assuming you take up the commission, the next stage is to contact the travel company and tell them you've been commissioned to do a piece by, say, The Guardian, and would they be able to take you? Often there's no problem, they'll be happy to accommodate you in return for the publicity that they'll receive. Some may say "No" for one reason or another, some may be full, some may offer you a discounted deal – there are no rules. Some may insist you pay for the trip as a normal customer, in which case the newspaper may agree to pay on your behalf, or pay for the trip in exchange for the article. It's worth mentioning that The Independent has its own special arrangements. In order to maintain its independence it will not accept free trips of any kind, so either you or the newspaper would have to pay for the holiday.

## Red letter day

Travel writing is not quite the lucrative enviable jamboree that it might appear to outsiders. For a start, the sun doesn't always shine, you can't pick and choose your flight time or spend hours deciding where you'll be staying. You get what you're given.



Mike Gerrard, freelance journalist, smiling not just because of the sun and sand but because he's earning an honest crust. Be warned though. "The sun doesn't always shine on the travel writer", says Mike.



Travel articles also tend to be fairly short, and some publications pay fairly low rates unless you happen to have a famous name or an established reputation. To begin with you're likely to be paid in the region of £100/£200 for a typical article, though a newspaper like The Sunday Times pays higher rates and runs longer articles. It's easy to see, though, that if you're on a two-week trip and only getting paid £150 for the article, that will just about cover your expenses on the holiday, plus the cost of getting to the airport and back, but it'll hardly cover the mortgage as well.

To talk like this to non-writers usually brings on comments about gift horses and mouths, but as a professional writer with a living to make you can only make so many trips a year, even free ones, and still come out on top. Basking in the sun is all very well, but it doesn't pay the bills unless you can also work on something else while you're away – or perhaps move on to writing travel books as well. It's one of the unexpected aspects of travel journalism: the more you do then the browner your skin but the redder your bank balance! Mind you, there's also a lot to be said for being able to claim the cost of your summer holidays against the tax-man!

## Just what the editor ordered

If you went into a shop to buy a yard of knicker elastic and came away with two feet or four feet, you'd probably take your custom elsewhere. The same principal applies to journalism, and there may well be other parallels with knicker elastic, but providing the right length of material is vital.

Travel pages tend to be produced to a fairly strict format. If you are lucky enough to get a commission, the travel editor will tell you the length of piece wanted: say 800 words. If you have a good relationship with the editor and feel you cannot write it in less than 1000 words then do say so, to see if you can have a little more room, but only if you have a very good case as to why he should give you more space than anyone else.

If asked for 800 words, then deliver 800/850. Allow up to a maximum of about 10% over, but no more. When laying out the pages, the editor will not want too short a piece. 750 words may leave him with white space to fill, and he might have to start adding a few sentences himself. Neither you nor he will be very pleased with that, he because he may have to work late to get it done, and you because those few sentences will probably not be written under the best of

conditions: you may be reliant on this piece to win other commissions, so you want it to read well. Delivering slightly too much gives the editor a few sentences to play about with when laying the article out. It's easier to cut than to create.

For this reason you should do your own cutting, which is where the Amstrad comes into its own. Editing is easier than constantly retyping. You must have a word count program, even if it is only LocoSpell, though at least this gives you some amusement on the way – like wanting to replace 'knicker' with 'knacker'. If you're anything like me then you'll write your piece feeling that every word you put down is essential. Then you discover it's 200 words too long. You must ruthlessly edit – take out single words, whole sentences and rewrite phrases to a shorter length. Don't play at temperamental artists: be a craftsman.

Ernest Hemingway said that "You must learn to kill your babies" – he was talking about writing, of course. No matter how good a sentence is, or how illuminating you think an incident is, if you've got to get rid of 200 words then something's got to give. There, I knew there was another comparison with knicker elastic!



# If you use *Mini Office* or *LocoFile*, here's what you've been missing:

**"FLIPPER is an invaluable tool, and really is like having an extra PCW."**

Rob Ainsley, *New Computer Express*

**"I am completely sold on it"**

Paul Hendy, *Your Amstrad PCW*

**"FLIPPER is one of the most impressive utilities I've seen for the PCW"**

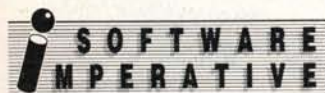
John Minson, *Computer Shopper*

FLIPPER could do some pretty surprising things. It could split your PCW in two, letting you run *LocoScript 2* in one half and a CP/M program in the other. Or it could let you load two CP/M programs at once if you preferred, one in each half. It could FLIP you from one half to the other in under 3 seconds, any time you wanted. And it wouldn't lose your place.

Unfortunately, there were a few things it

couldn't do. In particular, it couldn't load either *Mini Office Professional* or *LocoFile*. Serious shortcomings indeed.

Now **FLIPPER 2** is here. It can do everything FLIPPER could, but it works with *Mini Office* and *LocoFile* too. (It can even manage both at once if you want.) What's more, we've added more options and made it easier to install. Oh, and you can FLIP in as little as 2 seconds now.



**FLIPPER 2: at £29.95, it's essential.**

Please send me **FLIPPER 2** for my:

8512 ☐ • 9512 ☐ • 8256 with 256K extra memory ☐

☐ I enclose a cheque/postal order for £29.95 made payable to Software Imperative.

☐ I enclose my original FLIPPER masterdisk and a cheque/postal order for £5.00.

(Price includes UK postage and packing. Please make all cheques payable to Software Imperative. Sorry, **FLIPPER** does not run on an unexpanded 8256)

Name .....

Address .....

.....Postcode .....

Mail this coupon to:

**Software Imperative, Ashleigh, Bussage,  
Stroud GL6 8AZ**



## Two new packages to help you plan those merges

**PROTEXT MAILMERGE TUTORIAL****£15 ● Thompson Computers ● 0733 331796**

Generally, disc-based learning aids have got to be good to merit giving them as much as a second glance. That's because they nearly always involve quite a lot of file-swapping, not to mention reams of printout. If the tutorial is no good in the first place, then the chances are you're simply not going to bother.

This one has been designed to show people how to get the best out of Protext's mail merge facilities. The course comprises four sections: a basic introduction to mail merging, how to be selective when you're doing it, how to set up loops and counts and alter the information in a datafile and, finally, how to incorporate into Protext information created under other programs (like databases and spreadsheets)

Thompson assumes – and states as much – that the user will have a basic understanding of how to use Protext. That sounds fair enough – anyone who wants to learn how to mail merge in Protext will probably already be completely familiar with its more elementary commands.

On the other hand, tutorials are written for novices. On the first page, the user is informed that he will repeatedly be asked to 'swap to the second document' when consulting relevant example files. Then you are told that you will only be able to do this if you have Promerge Plus on your disc.

The naive user might assume that Promerge Plus has been thoughtfully included, but unfortunately it isn't there. Only on phoning the software company do you discover that particular piece of information is irrelevant to PCW users. You resort to printing out the guide.

The tutorial files are not all that inspiring (the odd spelling mistake and left-out word denote a general lack of attention to detail), but it's probably not unreasonable to be slightly sceptical of a tutorial that also advises you to pick up the Protext manual (renownedly obscure) and leave it open by your side while you work your way through the course.

The various stored commands requisite to mail merging (>df and >rv for example) are introduced. All well and good, but is that going to mean anything to the naive mailmerger unless he or she is also told exactly where to insert them? To someone who's only ever done a smattering of mail merge theory before, the answer is obvious. To the complete novice, it's nowhere near precise enough. It's not until you load up the example files that the fog begins to clear. Neither are you shown, keypress by keypress (which is what every beginner needs), how to complete an actual merge.

Having said that the tutorial does show you exactly what Protext can offer as a mailmerge program. It covers generating invoices and quotations, printing out address labels, and shows you how to wrap your mind round the potentially complex but extremely powerful concepts of loops and nested loops. It's also true to say that while the text may not be completely self-sufficient as far as understanding what's involved is concerned, there are plenty of example files to back up the points that are being made.

In a nutshell, then, for anyone who is at all familiar with Protext and the theory behind mailmerging techniques, this tutorial is probably a winner. For those who don't know all that much about either, it might be time to think again. ■

**RANGE OF FEATURES 2****EASE OF USE 2****PERFORMANCE 3****DOCUMENTATION 2****8000 PLUS VALUE VERDICT 2****DATADIARY****£16.95 ● A4 Ideas ● 0249 815082**

DataDiary is just the latest in a long line of PCW-spawned diary inserts. For ease of use, it works from within LocoScript and A4 Ideas have assumed a reasonable working knowledge of that famous word processor. The package has been produced in two versions: standard and special. This simply means that included in the latter version are two sets of specially designed LocChar-generated characters. LocoScript 2.12 or later is needed for these to work, but, once installed on the disc, these special characters are available for use in all your documents, on any disc.

The great thing about DataDiary is that you can buy it at any time of the year and still have exactly twelve month's supply of inserts available. Because it's constantly updated, it can run from January to January, December to December and so on – something which is worth knowing.

The version we looked at only produced A4-size printout. This looks more than adequate for desk use at work or for heavy-duty consultation in the home. The sheets can be printed out ready for handwritten entries, or edited on the screen and then printed out. All you have to do is punch them with holes and insert them into a loose leaf A4-size binder. If A4-size inserts sound a little unwieldy, then DataDiary is also released in a Filofax-size, page-a-day form.

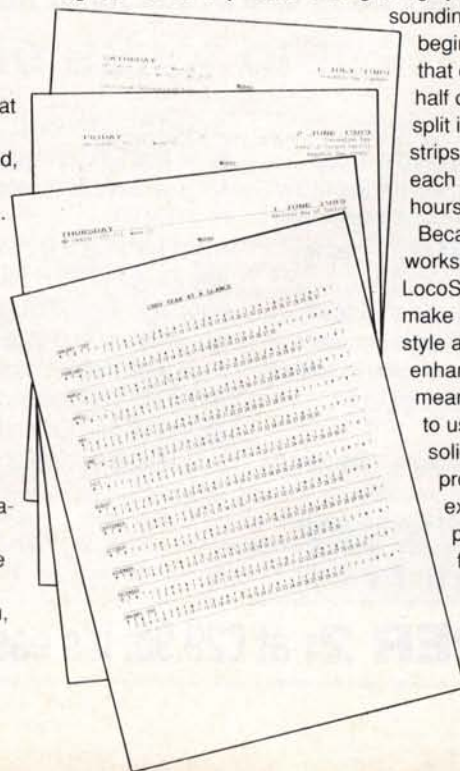
As well as producing year-to-a-page calendars, DataDiary can also print out month-at-a-glance planners on which to jot down some brief reminders; mind you,

they'd have to be fairly brief as you've only got one line at your disposal. However you're unlikely to forget any days of outstanding national significance, as anniversaries of the most obscure nature are all recorded throughout the months.

As well as those easy reference planners, DataDiary also produces a far more utilitarian page-a-day format. As well as including sunrise, sunset, phases of the moon and tide details, the program also includes each day's current zodiac sign as well as any notes relating to highly improbable-

sounding events which begin or take place on that day. The remaining half of the page is then split into horizontal strips allocated to each of the working hours of the day.

Because the program works from within LocoScript 2, you can make use of all of its style and text enhancements. It also means that it's a doddle to use. DataDiary is a solid, no-nonsense product that does exactly what it promises you and is flexible enough to use either at home or in the office. ■

**RANGE OF FEATURES 3****EASE OF USE 5****PERFORMANCE 4****DOCUMENTATION 4****8000 PLUS VALUE VERDICT 4**



# KAVIN

## Your One-Stop Shopping Centre

for all your **COMPUTER SUPPLIES**

Order by 3pm - we  
despatch by 4pm  
(subject to availability)

13%  
OFF ALL PRICES SHOWN  
FOR OVERSEAS BUYERS!



### PCW ACCESSORIES

|                                     |         |
|-------------------------------------|---------|
| Acoustic Hood for PCW 9512 +        |         |
| Daisywheel Printer                  | £95.00  |
| Additional Disk Drive for 8256/9512 | £137.00 |
| Modem V21/V23                       | £99.95  |
| RS232 Interface                     | £57.85  |
| 8256 Memory Upgrade                 | POA     |

Trade in your old PCW  
Part exchange your 8256/8512  
for PC1512/1640  
**CALL FOR LATEST PRICES!**

### 3" DISK DRIVE ONLY CLEANING KIT £7.50

Printer Maintenance Kit .....£16.00

### PCW GAMES

|                      |        |
|----------------------|--------|
| Starglider           | £19.95 |
| Pawn                 | £19.95 |
| Cyruus Chess II      | £14.00 |
| Time & Magic         | £11.95 |
| Clock Chess CP       | £14.95 |
| Bridge Player        | £18.00 |
| Leather Goddesses    | £20.00 |
| Head Over Heels      | £14.95 |
| Draughts/Checkers    | £14.95 |
| Matchday II          | £14.95 |
| Ballyhoo             | £20.00 |
| Scrabble Deluxe      | £20.00 |
| Hitchhikers Guide    | £20.00 |
| Tomahawk             | £20.00 |
| Backgammon CP        | £14.95 |
| Knight Orc           | £19.95 |
| Steve Davis Snooker  | £13.50 |
| Strike Force Harrier | £19.95 |
| Jinxter              | £24.95 |

### RIBBONS LOW LOW PRICES

Ask for quantity discount

|                       | 2     | 4+    |
|-----------------------|-------|-------|
| PCW 8256/8512/LQ3500  | £3.90 | £3.70 |
| 8256/8512 Red or Blue | £4.90 | £4.65 |
| 8256/8512 Carbon      | £4.90 | £4.65 |
| DMP 2000/3000         | £2.80 | £2.60 |
| PCW9512               | £3.85 | £3.75 |
| PCW9512 Red or Blue   | £4.85 | 4.75  |
| Minimum of 2          |       |       |

### PCW 9512 DAISYWHEELS

Many styles available .....£5.80

### PAPER & LABELS

|                                    |        |
|------------------------------------|--------|
| 2000 sheets 11" x 14.5" 1pt 60gsm  | £16.27 |
| 1000 sheets 11" x 9.5" 2pt OTC     | £19.82 |
| 2000 sheets 11" x 9.5" 1pt 60gsm   | £14.16 |
| 1000 sheets 11" x 9.5" 2pt NCR     | £23.26 |
| 2000 sheets A4 1pt 70gsm Microperf | £17.19 |
| 1000 sheets A4 1pt 85gsm Microperf | £11.49 |

| Labels               | 1 Across | 2 Across |
|----------------------|----------|----------|
| 2000 3 1/2" x 1 1/4" | £8.85*   | £9.20    |
| 2000 3 1/2" x 1 1/8" | £11.74   | £11.84   |
| 2000 4" x 1 1/4"     | £9.53*   | £9.65    |
| 2000 4" x 1 1/8"     | £13.00   | £12.72   |

\* Available in Blue, Yellow, Pink, Green (£1 extra)  
OTHER SIZES AVAILABLE

### PCW BOOKS

|                                       |        |
|---------------------------------------|--------|
| Advanced Amstrad Basic (Locom)        | £12.95 |
| Amstrad 8256/8512                     |        |
| More Wordprocessing                   | £9.95  |
| Amstrad CP/M Plus                     | £12.95 |
| Amstrad Comms (CPC/PCW)               | £8.95  |
| Amstrad Companion (Mallard)           | £7.95  |
| Amstrad Wordprocessing (8256)         | £8.95  |
| Introduction to CP/M Plus on Amstrads | £7.95  |
| Get Started 8256/8512                 | £7.95  |
| Mastering Amstrad Guide/              |        |
| WP Amstrad 8256                       | £5.95  |
| Practical Amstrad Wordprocessing      | £7.95  |

## AMSTRAD HARDWARE

PCW 8256 Single Drive/256k Memory/VDU/Keyboard/  
Dot Matrix Printer .....£373.00

PCW 8512 Double Drive/512k Memory/VDU/  
Keyboard/Dot Matrix Printer .....£487.00

PCW 9512 Single Drive/512k Memory/VDU/  
Keyboard/Daisywheel Printer .....£504.00

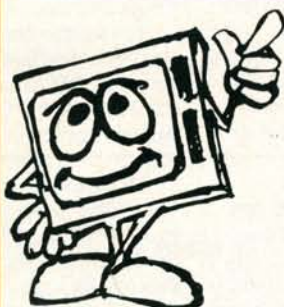
### DATAfax

DATAFAX by Kempston  
Diary/Phonebook/Calendar/Notepad  
Filofax on your PCW .....£33.50  
Stationery .....£6.95  
GIFT PACK (with Stationery/Binder) .....£42.00

### Mini Office PROFESSIONAL

Very successful - many new features  
5 separate programs - Wordprocessor  
● Database ● Spreadsheet ● Graphics  
● Communications Interactive  
**OUR PRICE ONLY £22**

Acoustic Hood for PCW 9512 Daisy  
Wheel Printer £95.00  
Printer Maintenance kit (for 8256 / 8512  
dot matrix printer ) £16.00



AMX MOUSE + DESKTOP  
Graphic Front End-Desk Diary  
Phone Address Book-Memopad .....£57.50

PCW DTP  
Fleet Street Editor Plus .....£43.00  
Electric Studio Newsdesk Int .....£38.52  
Database Publisher (Software) .....£23.00  
Database Publisher + AMX Mouse .....£59.80

STOP PRESS!  
DESK TOP PUBLISHING  
13 Fonts, Clip Art, Typesetting, Cut &  
Paste Up, Graphic Design  
STOP PRESS .....£34.50  
STOP PRESS + AMX MOUSE .....£69.00



**COPYHOLDER**  
Adjustable ● Deskclamping  
Convenient ● Versatile  
**Only £14.95**

### ANS 20L DISK STORAGE

Box Clever - protect your disks  
with high quality perspex, lockable  
storage boxes. Holds 20 3" disks & cases.  
**ONLY £7.95**



### SOFTWARE

|                                    |         |
|------------------------------------|---------|
| <b>Accounts</b>                    |         |
| Sage Popular Accounts              | £66.95  |
| Sage Payroll                       | £48.50  |
| Sage Invoice/Stock Control         | £48.50  |
| Sage Accounts Plus                 | £105.00 |
| Camsort Invoice/Stock/Sales ledger | £79.95  |
| Camsort Payroll                    | £39.95  |
| MAP Integrated                     | £105.00 |

### Wordprocessing

|                            |        |
|----------------------------|--------|
| Locomail                   | £31.95 |
| Locospell for Loco 1 or II | £19.50 |
| Locospell + Locoscript II  | £32.50 |
| Locoscript II              | £23.00 |
| Locofont                   | £18.00 |
| Tassword 8000              | £18.40 |

### Spreadsheets

|                     |        |
|---------------------|--------|
| Amsoft Supercalc II | £38.50 |
| Newstar Cracker II  | £38.50 |

### Database

|                    |        |
|--------------------|--------|
| Datatore II        | £32.50 |
| Sage Retrieve      | £48.30 |
| Camsort Cambase II | £34.50 |
| Masterfile 8000    | £33.95 |

### Graphics

|                                     |        |
|-------------------------------------|--------|
| DR Draw                             | £34.50 |
| DR Graph                            | £34.50 |
| Electric Studio Lightpen + Newsdesk | £56.00 |

### Communications

|                                 |         |
|---------------------------------|---------|
| Sage Combo (E&V)                | £84.99  |
| Sage Chit Chat (E&V) incl Modem | £209.00 |

### Language

|                        |        |
|------------------------|--------|
| French Mistress Kosmos | £16.95 |
| German Master Kosmos   | £16.95 |
| Spanish Tutor Kosmos   | £16.95 |
| Italian Tutor Kosmos   | £16.95 |

### SPECIAL OFFER ON TYPING TUTOR

|                                      |        |
|--------------------------------------|--------|
| lansyst Crash Typing                 | £19.50 |
| lansyst Two Fingers Touchtype Course | £19.50 |

### DUST COVERS

|   |        |
|---|--------|
| PCW 9512 (3 piece)  | £12.45 |
| PCW 8256/8512 (3 piece)   | £11.45 |
| PC1640 (2 piece)  | £9.50  |
| PC1512 (2 piece)  | £8.50  |
| DMP2000/3000/3160   | £4.50  |
| DMP4000   | £5.50  |
| LQ3500  | £4.50  |
| Eliminates dust and static with these attractively designed dust covers |        |

### 3" DISKS AMSOFT/MAXELL

|        | 5      | 10     | 20     |
|--------|--------|--------|--------|
| CF2    | £12.95 | £23.95 | £45.00 |
| CF2-DD | £29.00 | £49.95 | £90.00 |



**ALL PRICES INCLUDE VAT**  
(Overseas orders deduct 13%)

Mail Order + Export Hotline 01-567 7313

Official orders welcome from  
PLC, Government & Educational  
establishments  
**ALL PRODUCTS CARRY KCS  
GUARANTEE**

Post & Packing (UK Only)  
Ribbons 25p each  
Computer Paper £3 per box  
All Other Items 50p each  
Computer Printers £7.50  
(by courier)  
(Prices subject to change without notice)

Kavin Computer Supplies Dept (8000+)

106 South Ealing Road  
Ealing London W5 4QL  
Tel: 01-567 7313  
Fax: 01-578 2352  
Telex: 947838 GEEWS Dept KCS  
Callers welcome 9.30-5.30

# KAVIN



# A-WANDERING I WILL GO

Steve Patient muses on software and whether it travels or not

**T**he problem with some computer people is that you just can't take them anywhere. This isn't because they have excessive body odour (as a rule) or because they will pick their noses in restaurants (though some do) but because they are no longer portable. Many of them can only function effectively when sitting in front of a computer and once removed from its environs they simply cease to work – this is especially true of writers.

The trouble is that once having become used to the ease with which a computer allows your words to follow your thoughts, pen and paper is simply too rigid a medium for anything other than note-taking. Of course, it isn't just the computer; the software is every bit as important, and most writers can no more work with the 'wrong' software than they can with paper; once the siren has ensnared you even another siren can't get you away.

All of the above is in explanation for my recent joy; I have become portable. Regular readers will remember a short series we entertained concerning Cambridge Computers' Z88, a computer no larger than an A4 pad of paper but sporting a full-sized keyboard. This was so admired by our reviewer that he was loathe to part with it and only its sad demise brought it back into the 8000 Plus suite of designer offices.

I admit to only a glancing acquaintance with the Z88 previously (a glance full of techno lust) and so sent it off for repair, which Cambridge Computer promptly did. I've now had the machine for a few weeks and have had a chance to evaluate it for myself, and it's good.

The Z88 represents the first time I've ever used a computer whose built-in software is intended to provide everything you might need: I was doubtful as to how well it could work; after all, software is something you load in from disc as you need it. But the Z88 surprised me.

All right, the spreadsheet aspect is a bit of a red herring, no one would really use a spreadsheet in a window eight lines deep, like trying to wallpaper your hall through the letter box (or is that the tag line of a completely different joke?) but the word processing facilities of Pipedream are usable.

After a weekend of practice both my son and I could cope with writing programs in Pipedream and zipping them over to Basic, CLI files (the equivalent of SUBMIT files under CP/M), heirarchal directories, devices, and the pop-ups. It's really a lot of fun; you can leave the room without leaving the computer and I shall be buying one just as soon as I can afford it. Mind you, whatever Cambridge say, the thing eats batteries as though they were Smarties.

Since I now feel confident enough to entrust actual work to the Z88 I shall be reporting on how I get on as I sit among the hilltop tulips, admiring the shapes of clouds, and writing, anon.

## Marshmallow feeling

The long session with the vagaries of the Z88 represented the first time in a long time that I have actually enjoyed learning a new piece of software – albeit not on the PCW – which process set me thinking again (what, twice in one month, they cry). Many PCW owners never go through that exciting phase of computer ownership when they get to play with all sorts of weird and wonderful software, most of it never to be used again, perhaps, but an exciting time of discovery while it lasts. And important, too, since how else are you to get a feeling for what suits you?

Mastering a powerful software package, be it for business or pleasure, does take a considerable degree of effort, and I think we've all only got so much of that to go round. Finding a word processor, database or graphics program that does what you



want in the way that you want to do it can mean tackling steep learning curves several times, which is wearing. After a while, with the software mastered and in daily use, there is a marked reluctance to change even if it no longer suits the task in hand.

The figures we've seen suggest that as many as ninety percent of PCW owners never learn any software except LocoScript. Could it be that they found the effort so great that they can't face the prospect of learning anything else at all? If so they're doing themselves an injustice; even with the menus LocoScript is a complex package. Few other programs will tax anyone who has mastered it.

## Wordmongering

Now there are those who claim to have detected a certain bias, vis a vis word processors, in these pages, and I am not about to deny it. Surely one of the main reasons why you're still reading is to see some informed opinion (and one man's opinion is another man's prejudice). Apart from a bit of programming I use my computer for the same things as almost everyone else, mucking about with words.

I've written them using everything from public domain text editors on unheard-of old machines to Wordperfect 5 on a fast IBM AT compatible. Among other programs I've used Wordstar, PC Write, Macwrite and Word (on the Apple Macintosh). On the PCW I've used LocoScript 1, Tasword and Wordstar.

Of these the ones I've used most are WordStar, LocoScript 1 and Protext. And there's no doubt in my mind that for my purposes Protext is far and away the best; but I'm not saying that Protext is the best word processor, everything depends on what you need to do.

One thing I almost never do is to print my work out – it all goes onto disc, but something I do frequently is to load, alter and save files, sometimes several in just a few minutes. In fact in the past hour I've worked on seven different text files, pulled two of them apart and created three different files from the bits. This kind of thing is almost effortless in Protext.

Something I never have to do is to create structured documents, such as scripts. If I did then I probably wouldn't use Protext, it doesn't lend itself well to that kind of work. While the amount of time I've spent on LocoScript 2 can be measured in minutes rather than hours, it's been long enough for me to get a feel for the way it works, and so while previously I would have chosen WordStar for scripts (yes, really) now I would choose LocoScript 2, it would be far better.

But all this leads me back to the point that unless you've had at least a casual acquaintance with a variety of software you're simply never going to appreciate the difference that the right package can make to the work you're doing. I mean, you could write a book with RPED, but it won't make it any easier. And despite the shortcomings of Pipedream, it will go for a walk with me, which Protext never would.



# MICROSNIPS

## AMSTRAD AUTHORISED BUSINESS DEALER

### COMPUTERS

**PCW 9512**  
**WORD PROCESSOR**  
 plus box 2,000 sheets fanfold paper  
 only **£516.35** inc. VAT  
 SAVING £65.95  
 or Budget Account £22.00 month  
 APR 32.9%

### SCOOP PURCHASE!

**PCW 8256**  
 including Printer, Software,  
 Manuals. MRP £458.85  
**£359.95**  
 All as new with 12 months  
 guarantee - but refurbished

**PCW 8512 DUAL-DRIVE**  
**WORD PROCESSOR**  
 plus box 2,000 sheets fanfold paper  
 only **£514.95**  
 SAVING £75.94  
 or Budget Account £22.00 month  
 APR 32.9%

### DISKS & DISK MEDIA

CF-2 MAXELL 3" DISKS, 10 for.....£25.95  
 JVC 5 1/4" DSDD 10 for .....£9.95  
 3" DISK CLEANER WITH FLUID.....£6.95  
 YUDS 70L LOCKABLE DISK BOX  
 holds up to 20 3" disks.....£8.95

### DISK DRIVES

AMSTRAD FD-2 PCW 2nd DRIVE...£159.95  
 AMSTRAD FD-4 9512 2nd DRIVE...£159.95

### PRINTERS, ACCESSORIES

PCW 9512 PAPER GUIDE.....£19.95  
 PCW SERIAL/CENTRONICS  
 INTERFACE.....£69.95  
 PCW 9512 DAISYWHEELS.....£7.95  
 MASTERPACK PRINTER SCANNER  
 inc. SOFTWARE.....£69.95  
 PCW 9512 RIBBONS.....£4.99  
 PCW 8256 RIBBONS.....£4.99  
 PCW 8512 RIBBONS.....£4.99

### QUANTITY DISCOUNTS AVAILABLE

### PROTECTIVE COVERS

★ FLAME RESISTANT, WATER RESISTANT,  
 ANTI-STATIC  
 ★ PCW 8256/8512 3-PIECE SET.....£22.95  
 ★ PCW 9512 3-PIECE SET.....£24.95  
 MICROSNIPS PCW 8256/8512  
 DUST COVER SET.....£14.90

### GENERAL ACCESSORIES

PCW DATAFAX GIFT SET.....£49.95  
 PCW DATAFAX S/W.....£39.95  
 PCW LIGHTPEN BY TROJAN.....£29.95  
 KEMPSTON MOUSE inc. JEEVES.....£89.95  
 AMX MOUSE inc. STOP PRESS.....£79.95  
 PCW MODEM.....£99.95  
 SURGE PROTECTOR.....£12.95  
 4-WAY ANTI-SURGE TRAILING  
 SOCKET.....£14.95  
 PCW 8256/8512 EXTENSION SET.....£15.95  
 RAM 'COMMUNICATOR' with  
 RS 232.....£59.95

## 20% OFF ALL SOFTWARE

ERRORS & OMISSIONS EXCEPTED

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

Immediate clearance of cheques with Guarantee Card No. on reverse.

MAIL ORDER PRICES ALSO OFFERED FOR PERSONAL CALLERS PRODUCING  
 THIS ADVERTISEMENT



OPTIMA

**IMPORTANT NOTE FOR OVERSEAS CUSTOMERS!** Postgiro international  
 accepted. NOT Postbank Postcheque. Books have no tax - Europe add £5. Non  
 Europe add £10. We reserve the right to charge carriage at cost. We apologise  
 for any alterations or omissions since going to press.

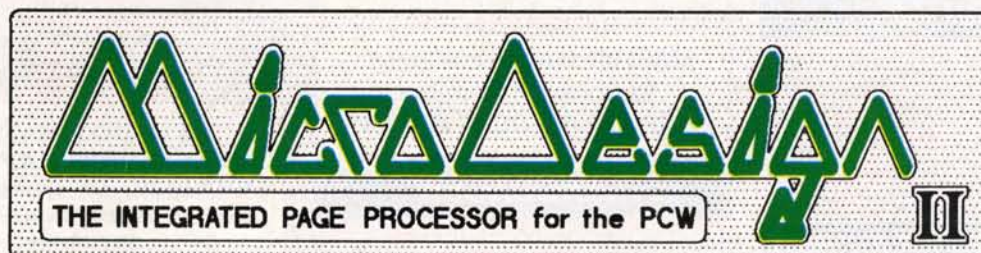
**UK Postage and Packaging.** Items under £50 add £2. Items under £100 add £5.  
 Items over £100 add £10 for Group 4 Courier ensuring delivery to you the day after  
 despatch. Overseas customers (Europe): Full price shown will cover carriage and  
 free tax. Non European add 5% to total.

**REPLY TO 6/8000 PLUS**

37, Seaview Road, Wallasey, Merseyside L45 4QN.  
 051-691 2008, 051-630 5396, 051-630 3013. FAX: 051-639 2714

... at last ... **SERIOUS DTP** on the

**AMSTRAD PCW**



## A NEW GENERATION OF ADVANCED SOFTWARE FOR THE PCW

- TYPESETTING - GRAPHICS - FONT DESIGN - PAGE LAYOUT - TEXT EDITING - PRINTING -

### PRICE

**£59.95**

With Kempston Mouse

**£99.95**



inc VAT  
 and P+P

MicroDesign II is fully compatible  
 with Locoscript 2, Protex, Wordstar,  
 AMX Stop-Press, NewsDesk International,  
 The DeskTop Publisher, Master Scan...

Huge range of Fonts, Typestyles,  
 and Typesetting functions.

Extensive range of Graphic Art  
 and Design facilities.

Specialised printer software for  
 highest quality output from the  
 PCW's own printer, or external  
 9-pin, 24-pin or laser printer.

This advertisement was designed  
 and printed at this scale using  
 MicroDesign II on an Amstrad  
 PCW8512 with an external 9-pin  
 dot matrix printer.



10 Park Street  
 Uttloxeter  
 Staffs  
 ST14 7AG

0889-567160

**CREATIVE TECHNOLOGY**



# DISCOUNT SOFTWARE

## FOR THE PCW 8256, 8512 & 9512

### HARDWARE

#### 5.25" DISC DRIVES

We now stock 5.25" fully compatible disc drives for the PCW range. They are directly addressed by CPM and require no extra software.

PCW 8256 & 9512  
5.25" drive.....£139.95  
PCW 8512  
Switchable drive.....£159.95

### WORD PROCESSING

Tasword 8000 .....17.95  
Tasprint 8000 .....10.95  
Taspell 8000 .....11.95  
Tas Sign.....23.95  
Locoscript 2.2 (new version) .....21.95  
Locoscript 2 + Locospell .....31.95  
Protext Filer (needs Protext) .....21.95  
Protext Office (needs Protext).....29.95

#### MJC SPECIAL:

PROTEXT CPM FULL VERSION  
including Spellchecker & Mailmerge  
**RRP £59.95 OURS £41.95**

### DATABASES

Masterfile 8000 .....34.95  
At Last Plus .....29.95  
Cornix Card Index.....29.95  
Minerva First Base.....25.95

### TUTORIAL

German Master.....15.95  
French Mistress.....15.95  
Italian Tutor.....15.95  
Spanish Tutor.....15.95  
Iansyst Two Finger Typing.....19.95  
Iansyst Crash Course Typing...19.95

### SPREADSHEET/PLANNING

Supercalc 2.....39.95  
Minerva First Calc.....25.95  
Money Manager Plus.....34.95  
Stockmarket (share analysis) ...34.95  
Cornix Simple Accounts II.....79.95  
Plan-It (personal planner).....15.95

### DESKTOP / GRAPHICS

Desktop Publisher.....19.95  
Desktop Publisher + AMX Mouse .59.95  
Stop Press Software.....32.95  
Stop Press + AMX Mouse.....69.95  
Supertype II .....12.95

#### MINI OFFICE PRO+

New updated Mini Office with free  
all-in-one-book, by John Hughes

RRP.....£49.95  
OURS.....£34.50

Please call for availability

#### AN APOLOGY

MJC Supplies wish to apologise for inconvenience caused  
by Database's inability to provide this product on time.  
Upgrade to "PLUS" with the Spellchecker and Thesaurus

**RRP £24.95 OURS £15.95**

#### MASTERSCAN:

Will digitise MOST pictures using  
an optical scanner attached to the  
PCW printer head. Images can  
then be re-printed or saved to disc  
and incorporated in the  
Masterpaint or Desktop Publisher.  
**RRP £69.95 OURS £54.95**

#### MASTERPAINT:

Graphics package which can be  
used to enhance or alter images  
produced by Masterscan or as  
stand alone drawings package.  
**RRP £19.95 OURS £15.95**

**MASTER PACK:** including both  
Masterscan and Masterpaint.  
**RRP £79.95 OURS £61.95**

### LANGUAGES

Hisoft Forth.....18.95  
Nevade Cobol .....39.95  
Nevada Fortran .....39.95  
Hisoft Pascal 80 .....39.95  
Hisoft Devpac 80 V2.....39.95  
Hisoft C Compiler.....39.95  
Maxam II.....39.95  
Arnor C.....39.95

### GAMES

Clock Chess '89.....15.95  
Classic Games 4.....15.95  
Head Over Heels (not 9512) ..12.95  
Corruption .....19.95  
Trivial Pursuit.....15.95  
Scrabble.....15.95  
Tomahawk .....15.95  
Clock Chess '88.....12.95  
Matchday II.....12.95  
Batman (not 9512) .....12.95  
Time & Magik.....11.95  
Lancelot .....15.95

### BOOKS

Mastering CPM.....18.95  
All In One Computing (Hughes) ..11.95  
Program Your PCW.....7.95  
PCW Basic 2 (Mallard Basic) ..9.95  
Amstrad CPM+ Book .....12.95

### PRINTER RIBBONS

PCW 8256/8512 Fabric 14m...3.95  
.....x2 7.00  
PCW 9512 Genuine Carbon....3.95  
PCW 9512 Fabric Multistrike....2.95

### MISCELLANEOUS

PCW 8000 Dust Cover Set 3pc...9.95  
PCW 9512 Dust Cover Set 3pc 10.95  
8 Series Printer Ext Lead 1m...11.95  
9 Series Printer Ext Lead 1m...12.95  
1000 Fanfold Labels.....5.95  
3" Disc Head Cleaner.....6.95

#### 9512 Daisywheels: All at 5.95

Rector (10) Courier (10)  
Script (12) Orator (10)  
Prestige Elite (12) Thesis (prop)  
Letter Gothic (10/12) Minigothic (15)

#### 9512 DOT MATRIX PANASONIC KXP1081

Well built, 10" carriage dot  
matrix printer for DTP and  
graphics  
£169.95 (includes lead)

#### GENUINE AMSOFT CF2 DISCS

**BOX OF 10 JUST - £25.95**  
(Please call for availability)

All prices INCLUDE VAT, postage and packaging  
Overseas orders welcome - please write for prices

## MJC SUPPLIES (PLS)

40a QUEEN STREET, HITCHIN, HERTS. SG4 9TS.

Tel: (0462) 32897 / 420847 / 421415 for Enquiries / Credit orders

Callers welcome Monday to Friday 9.30 - 5.00. Saturday 10.00 - 4.00





# SPREAD..... THE WORD!

Tim Smith, not normally a calculating sort of person, gets his head down and looks at the serious side of software

The words 'spread' and 'sheet' are fairly innocuous, both associated with beds perhaps? But when combined into the term 'spreadsheet', they can either strike fear into the heart, or plaster beatific smiles across the face depending on whether or not you've been initiated into their mysteries. If not, then read on for hope; if you have, then see what the opposition has to offer as we put four spreadsheets up against the wall and frisk them for concealed weapons.

The spreadsheet is to figures what the word processor is to text. The latter allows you to manipulate words to your heart's content. The former makes numbers and formulae fall at your fingertips. You merely have to learn the ground rules before finding yourself coming up with ideas for making the year-end statistics look that bit more encouraging or your bank balance look a bit more, well, more.

A simple idea; the spreadsheet may be viewed as a piece of electronic paper which has been ruled into rows and columns. Beneath this disguise lies a powerful calculator - maybe even a database - which will allow you to get some real use from the 'computer' part of your PCW. Like the word processor, the spreadsheet provides almost infinite amounts of electronic paper on which to work. You can do all the moving about, re-arranging and tidying up of data which would normally be achieved using several pads of A4.

## True Grid

The true strength of the spreadsheet, however, lies in its ability to carry out many calculations quickly and efficiently across a grid of numbers that are inter-dependant. This concept is important enough in business to have spawned an entire software industry, but the resulting software is so flexible - to which all those who ever have to resort to the hypothetical *what if?* calculation will bear witness.

In the office, you might have a sheet of paper covered with figures - say a unit cost analysis for a Fission Fusion Cushion Factory; at home, on the other hand, you might have an analysis of various pension options. Both situations require you to ask yourself the following question: what will be the repercussions if this figure goes up, or that one goes down?

Staying with the cushion factory for a minute; each of the figures will hang around the sheet waiting to be calculated. Such large-scale calculations take time and you will need a neat version before the results can be presented to the bank manager, shareholders or spouse. Then, horror of horrors, there is a rise in the price of raw Strontainium 453, a basic raw material, due to a strike in Ilford. The figures look restless, recalculation needs to be done. Without the spreadsheet, you're going to need more paper, more coffee, an immense reserve of patience and batteries for the calculator.

Each addition, subtraction, multiplication or division, (let alone exponentials, negatives and of course SINS) changed in one cell will have an effect on the others. You will probably end up with sleep deprivation, a severe caffeine habit as well as mistakes. Finally, if the final report has to be okayed by anyone higher in your esteem than Sooty you will need yet another neat version.

## Our Daily Spread

Ideally, spreadsheets should smoothe the creases out of your life, allowing you to build up templates, complete with pre-programmed formulae to suit your specific needs - for example, an instant currency conversion table. Just as a word processor can save phrases or blocks, so a spreadsheet can save mathematical processes for later use.

While all spreadsheets operate in much the same way, you will need to look around to get one which fits your exact requirements. At a basic level, every spreadsheet will fill the screen of your PCW with a grid, the columns of which will be labelled with letters, the rows with numbers. The place where these rows and columns intersect defines a box or 'cell'. Each of these cells is therefore referenced by a letter followed by a number; for example, A1, B66.

If your spreadsheet extends beyond 26 columns, the letters will double up and the references will become AA33, AB33 and so on. This will become more apparent when you look at a working screen.

Into each one of these cells you can incarcerate some text, a number, or a formula which can then be referenced by another cell. Each cell has a unique reference so entering the value 4 in cell C22 allows it to be used in cell D77 in the following manner:  $11 + (C22 * 5)$ . This will give a result of 20. Consequently any change in the value of C22 will affect the number in D77. So if the price of Strontainium 453 is what is actually kept in cell C22, then changing it will quickly modify D77 and the rest of the sheet - which uses that value to calculate the price of fissile cushions. Can't be bad, really.

## Four Sheets to the Wind

Most of the time you move around the spreadsheet with the arrow keys to the right of the PCW keyboard but there is a Goto command as well. So if you are stuck in cell Z80 when you need to be in A1 you can get there easily without cursoring tediously all the way (in Cracker, for example, you press J for jump and then fill in the coordinates).

Working in the far flung regions of a spreadsheet means that you can't see changes occurring in other places. Most sheets provide an option called windowing to overcome this. Windows are small sections of the spreadsheet which can be shown simultaneously on screen. For example a section ranging from A1 to C8 may be in front of your eyes along with the block Z12 to AZ22.

That's enough of the general stuff. A true understanding and appreciation of spreadsheet power comes with actual use. But, with long term use you might realize that nigh on £50 was a wee bit too much to pay when the back of a matchbook could have served to calculate your current account surplus. So, now is the time to examine a few of the spreadsheets you will find on the market and decide both whether or not you need one, and which one it's to be.

Each has its own qualities and equally each has its faults. At their weakest, spreadsheets are glorified calculators just as word processors are turbo typewriters. At their most powerful they are tools which do your bidding, are motored by your imagination, and can change the way you work.

We will consider four spreadsheets of varying prices and abilities beginning with the best known in the PCW world.



OVER  
4000  
USERS

# STOCK MARKET

## THE COMPREHENSIVE INVESTMENT PROGRAM!

OVER  
4000  
USERS

STOCKMARKET is a program designed to help you plan your investments and keep a close and careful watch on their progress. It enables you to record full details of your purchases and sales of stocks, shares, unit trusts and other securities. Dividends can be recorded as they are received. If required, cash balances in savings accounts can also be monitored as stocks are bought and sold. It also lets you record and plot prices of shares, unit trusts, exchange rates, indexes etc.

STOCKMARKET does not have to be used only with your real investments. We all see shares recommended in a newspaper or magazine that we think will do well. Six months later if the price has gone up we wish that we had trusted our judgement. If the price has fallen we quietly forget it. With STOCKMARKET you can record details of as many shares folios as you want. These can include hypothetical folios of 'hot stocks', recovery shares, penny shares or whatever you choose. You can practise buying and selling shares and see how well you do!

The program is easy to use and comes complete with a comprehensive manual and demonstration files including real price information going back several years for several shares (inc FT 30 index, British Telecom, Amstrad, Marks & Spencers) so that you can plot graphs straight away.

### PORTFOLIO MANAGEMENT

- \* Record full details of your portfolios of stocks, shares, unit trusts etc.
- \* Practise buying and selling and accurately record your progress.
- \* Up to fifty shares per folio. As many folios as you like.
- \* Buy and sell shares with automatic calculation of dealing costs.
- \* Ten sets of dealing costs which you can alter as necessary.
- \* Record dividend yields and price earnings ratios.
- \* Update prices and automatically recalculate share and folio values.
- \* Record tax credits (not CPC) and dividend payments.
- \* List one year's information for the tax man (not CPC).
- \* Keep records of your cash as you buy and sell.
- \* List your present folio, past transactions, dividends and cash accounts.

### PRICE ANALYSIS

- \* Record values of share prices, unit trusts, indexes, exchange rates etc.
- \* Store up to 260 prices per share (equivalent to weekly prices for 5 years).
- \* List all the prices for each share.
- \* Plot prices and moving averages on a logarithmic or linear scale.
- \* Choose any period for moving averages. Plot them separately or superimpose them on the price.
- \* Automatic scaling of graphs so they always fill whole screen.
- \* Easy to read scales for prices and dates (not just week numbers).
- \* Complete with real weekly prices for several shares for the last few years (inc FT 30, British Telecom) as a demonstration.
- \* Use curves as a guide to the best buying and selling opportunities.

Comprehensive fifty page manual. Complete with demonstration account and prices.

**AMSTRAD PC, PPC, IBM PC and compatibles £39-95**

**AMSTRAD PCW £39-95**

(AMSTRAD CPC (disc) £29-95)

Prices are all inclusive worldwide. Send cheque or phone any day (including weekends) from 8am to 9pm and quote credit card number for immediate delivery by first class post.

38 Balcaskie Road, London, SE9 1HQ. Tel: 01-850 7057

**MERIDIAN**  
software



| WORD PROCESSING   | PCW SOFTWARE   | EDUCATIONAL   |
|---|--|---|
| Locoscript II .....22.95<br>Locospell II .....17.95<br>Locoscript II with Locospell .....32.95<br>Locomail II .....27.95<br>Locofile 8256/8512 .....27.95<br>Locofile 9512 .....27.95<br>Locofont .....17.95<br>Locofont Set 2 .....13.95<br>Protex v2.2 .....44.95<br>Pocket Protex .....22.95<br>Prospeil .....22.95<br>Protex Filer .....18.95<br>Protex Office .....26.95<br>Tas-Word 8000 .....17.95<br>Tas-Spell 8000 .....11.95<br>Tas-Print 8000 .....11.95<br>Tas-Sign 8000 .....24.95 | <p><b>! NEW ! Mini Office Professional Plus ! NEW !</b><br/> <b>RRP 49.95 Copy Comm Price ONLY 34.95 (Upgrade 17.95)</b></p> <p><b>MEDIA &amp; SUPPLIES</b></p> <p>9512 Printwheels UK styles .....From 4.95 to 5.95<br/>                     9512 Carbon Ribbons .....3.95<br/>                     9512 Fabric Ribbons .....3.50<br/>                     9512 2 piece Dustcover Set .....9.95<br/>                     9512 3 piece Dustcover Set .....9.95<br/>                     AMS20L Storage Box .....9.95</p> <p><b>COMMUNICATIONS</b></p> <p>Sage Chit Chat Pack .....225.95<br/>                     Sage Chit Chat .....87.95<br/>                     Dialup .....69.95<br/>                     Comm + .....69.95</p> <p><b>LANGUAGES</b></p> <p>Devpac 80 MK II .....39.95<br/>                     Hisoft C .....29.95<br/>                     Hisoft Pascal .....29.95<br/>                     Hisoft LForth .....15.95</p> | Write Right.....9.95<br>World Wise.....13.95<br>Animal/Vegetable/Mineral.....13.95<br>Supermaths.....14.95<br>The French Mistress.....17.95<br>The German Master .....17.95<br>The Spanish Tutor .....17.95<br>The Italian Tutor .....17.95   |
| DESKTOP PUBLISHING  | ACCOUNTING   | ENTERTAINMENT   |
| The Desktop Publisher .....19.95<br>The Desktop Publisher with Mouse.....59.95<br>Master Paint .....13.95<br>Master Scan.....52.95<br>Master Scan + Master Paint .....59.95<br>Stop Press.....32.95<br>Stop Press with Mouse.....69.95<br>Desktop Organiser with Mouse .....64.95<br>Fleet Street Editor Plus .....39.95<br>Newsdesk International.....39.95  | Sage Popular Accounts Plus 129.95<br>Sage Popular Accounts .....87.95<br>Sage Popular Invoicing .....61.95<br>Sage Popular Payroll .....61.95<br>Compact Accounts .....159.95<br>Compact Payroll .....79.95<br>M.A.P. Accounts .....119.95<br>M.A.P. Payroll .....From 39.95 to 59.95<br>Camsoft PSIL .....119.95<br>Camsoft Payroll .....39.95<br>Digma Business Controller .....54.95<br>Cornix Simple Accounts .....39.95<br>Money Manager Plus .....29.95  | Delta v4R .....79.95<br>Cardbox Plus .....79.95<br>DBase II .....69.95<br>Sage Popular Retrieve .....59.95<br>Pocket Infostar .....54.95<br>Smartcard .....47.95<br>Cambase II .....39.95<br>Chibase .....39.95<br>Masterfile 8000 .....37.95<br>At Last Plus .....29.95<br>Datastore II .....29.95<br>MASS Easy Labeller .....27.95<br>First Base .....23.95 |
| SPREADSHEET   | <p><b>When comparing please remember.....</b><br/> <b>ALL OUR PRICES INCLUDE VAT &amp; FIRST CLASS POSTAGE.</b><br/> <b>STOCK ITEMS POSTED SAME DAY.</b></p>   |   |
| Cracker II Turbo .....39.95<br>Scratch Pad Plus .....49.95<br>Supercalc II .....44.95<br>Multiplan .....54.95<br>First Calc .....24.95  | <p><b>Time and Magik .....9.95</b><br/> <b>Lancelot .....13.95</b><br/> <b>Clock Chess 89 .....17.95</b><br/> <b>Classic Games 4 .....17.95</b><br/> <b>Bridge Player 2000 .....13.95</b><br/> <b>Batman .....12.95</b><br/> <b>Head Over Heels .....12.95</b><br/> <b>Matchday II .....12.95</b><br/> <b>Brian Clough Football .....12.95</b><br/> <b>Colossus Bridge .....13.95</b><br/> <b>Colossus Chess 4 .....13.95</b><br/> <b>Steve Davis Snooker .....12.95</b><br/> <b>Strike Force Harrier .....17.95</b><br/> <b>Tetris .....17.95</b><br/> <b>Annals of Rome .....21.95</b><br/> <b>Tomahawk .....17.95</b><br/> <b>Fish .....18.95</b><br/> <b>Guild of Thieves .....18.95</b><br/> <b>Starglider .....18.95</b><br/> <b>Corruption .....18.95</b></p>   |   |



### COPY COMM SOFTWARE

Aytounhill, CUPAR, Fife KY14 6JH, Scotland

ORDERS TO: COPY COMM, FREEPOST, CUPAR, FIFE KY14 6BR

TELEPHONE ORDER HOTLINE: 033 77 444





# MICRO MEDIA

Computer Supplies Ltd. 0533 856622

AMSOFT/ MAXELL 3" DISCS SPECIAL OFFER CF2 5 10 20 50  
11.50 21.80 41.80 99.50

## Printer Ribbons

| Price per each Ribbon       | 2    | 6    | 12   |
|-----------------------------|------|------|------|
| Amstrad 9512 Carbon         | 2.99 | 2.75 | 2.50 |
| 9512 carbon                 | 3.20 | 2.95 | 2.70 |
| 8512/8256/LQ3500 carbon     | 4.95 | 4.65 | 4.35 |
| *8512 LQ3500 carbon         | 3.99 | 3.80 | 3.60 |
| DMP 2000/3160/3000          | 2.80 | 2.60 | 2.35 |
| LQ5000                      | 9.95 | 9.30 | 8.75 |
| *Canon 1080/1156            | 2.99 | 2.85 | 2.60 |
| *Epson MF & RX80, F & LX800 | 2.99 | 2.75 | 2.55 |
| *LX80/86 GX80               | 2.80 | 2.65 | 2.40 |
| NEC P2200                   | 4.95 | 4.60 | 4.25 |
| *Panasonic IXP's            | 3.99 | 3.80 | 3.60 |
| *Star LC10                  | 3.50 | 3.10 | 2.85 |

\* = Colour Ribbons available.

## Dust Covers

| For Printers                | For Computers          |
|-----------------------------|------------------------|
| DMP 2000 \$5.75             | PCW 8256 \$6.60        |
| 8256 \$5.75                 | PCW 8512 \$6.60        |
| 9512 \$5.75                 | PCW 9512 \$6.60        |
| MOUSEPAD \$4.90             | 3" HEAD CLEANER \$5.90 |
| DAISYWHEELS FOR 9512 \$6.50 |                        |
| ANTI GLARE SCREEN FILTERS   |                        |
| 12" Mono \$11.85            |                        |
| 14" Colour \$13.85          |                        |

## MD12 3" x 12"

### DISC BOX

|   |       |
|---|-------|
| 1 | 11.90 |
| 3 | 11.90 |
| 6 | 10.50 |

- spring forward action
- 3" file in existing case
- Modular stacking-clip together
- supplied with 12 cases & index cards

## Computer Paper

| Size                            | Weight | 1000's  | Price per box     |
|---------------------------------|--------|---------|-------------------|
| Plain fanfold, micro perf edges | gsm    | per box | 1 box 5 bxs       |
| 11x9 1/2                        | 60     | 2000    | 14.95 14.45 13.65 |
| 11x9 1/2                        | 70     | 2000    | 18.45 16.05 15.15 |
| 11x9 1/2                        | 80     | 2000    | 20.25 18.55 16.45 |
| A4 11 1/2 x 9 1/4               | 70     | 2000    | 20.95 19.70 18.45 |
| A4 11 1/2 x 9 1/4               | 80     | 2000    | 24.55 23.05 20.15 |
| A4 11 1/2 x 9 1/4               | 90     | 1000    | 14.25 13.15 14.15 |

## Computer Labels

| Continuous fanfold, sprocket fed | Price per 1000 | 1000 | 3000 | 5000 |
|----------------------------------|----------------|------|------|------|
| 70 x 36 2 1/2 x 1 1/4            |                | 4.85 | 3.85 | 3.55 |
| 89 x 36 3 1/2 x 1 1/4            |                | 5.35 | 4.50 | 4.10 |

Please state no of labels across sheet (1, 2 or 3)

## HOW TO ORDER

BY PHONE ACCESS & VISA  
LEICESTER 0533 856622

OUT OF OFFICE HOURS (ANSWER MACHINE)

BY POST MICRO MEDIA, DEPT. 80 + FREEPOST, UNIT 3, CUTTERS CLOSE, NARBOROUGH, LEICESTER LE9 5FZ

PERSONAL CALLERS SORRY NO PERSONAL CALLERS

POTTERS BAR - PERSONAL CALLERS WELCOME - MICRO MEDIA, Rydal Mount, Baker St., Potters Bar, Herts.

Mon to Fri 10.00am - 4.00pm

OFFICE HOURS Leicester - Mon to Fri 8.30am - 6.30pm

DESPATCH WITHIN 24 HRS

DELIVERY PLEASE ALLOW 5 DAYS

For guaranteed next day delivery please phone - from £2.50 EXTRA. Postage covers UK only.

MINIMUM ORDER VALUE

FOR PAYMENT WITH ORDER

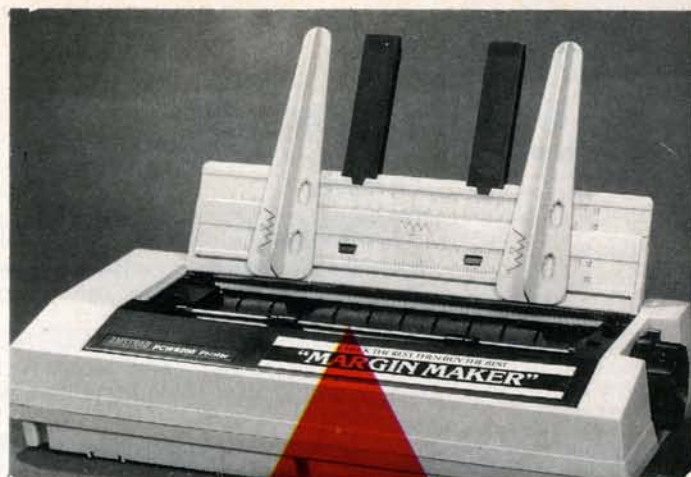
Min. Value \$8.90 or \$1.50 Handling charge.

FOR ACCOUNT CUSTOMERS

Min. Value \$15.00 or \$3.00 Handling charge.

SPRING CATALOGUE OUT NOW

PLEASE RING OR WRITE FOR YOUR FREE COPY



SIMPLY - THE BEST!

## "MARGIN MAKER"

'MM3' Cut Sheet LOCATOR & ALIGNER for PCW 8000 Printers

Vital when using printed stationary. Save time and paper. 'Waft' up to 100gms paper between arms and load, accurately! Lock arms anywhere. Four scales marked. Simply fitted and adjusted. A real boon.

"...Excellent product. MM3 is by far the best product of its kind on the market."

'Your Amstrad PCW' November 87

"Very well designed, extremely well made. You would expect it to work well, and it does."

'Amstrad PCW Magazine' October 87

"MM3 must be THE best add-on for the Amstrad PCW!"

Mr. I.T.C.O. Tonbridge

ONLY  
£10.50

incl. VAT & p+p

Send addressed adhesive LABEL, with REMITTANCE made out to:-

"MARGIN MAKER"

Dept. 8 Box 121 Gresham Road, Staines, Mx, TW18 2AJ, England.

(Overseas. Add £2.00 Sterling)

REG. DES. APPL. No. 1043347 covers "MARGIN MAKER" "MM3"

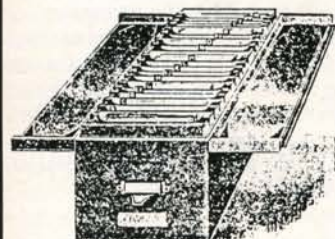
## ENHANCED, GREATLY

### AnsibleIndex PLUS!

The fully-featured LocoScript indexer, now UPGRADED. Easier to use, more powerful, same price.

AnsibleIndex PLUS will index from your LocoScript documents:

- \* Words and phrases
- \* Inverted phrases
- \* Headings and sub-headings
- \* Themes and sub-themes
- \* Choice of automatic alphabet sorting



We include an improved version of Check... fast LocoScript word counter. Counts a whole document, several in one go... or just a small section of text. (Also available separately.) And the dreaded Grease is more fiendish than ever...

Price: £29.95

We also supply A.I.Q. . . the Amstrad PCW random text generator, with uncannily lifelike (always) and funny (sometimes) results. No other PCW program is like A.I.Q.

Price: £25.95

Request our info sheet for more details. If you are an existing user of the old AnsibleIndex, please write to us at once for details of how to get your low-price upgrade. All Ansible software comes with a manual written in plain English. The prices shown include VAT, postage and full after-sales support. No extras!

### ANSIBLE INFORMATION

94 London Road  
Reading  
Berkshire, RG1 5AU  
England



Tel: 0672 62576

## BRAINSTORM

Successful projects, reports, courses, meetings and presentations can be yours with BrainStorm

- It's an ideas organiser
- It enhances and encourages your thinking and creativity
- It lets you build and rearrange maps of your thoughts
- It's so fast, it never impedes your creative flow
- It's quick to learn and is genuinely easy to use
- It's a tried and tested product with thousands of users
- It comes with a full tutorial and reference manual
- It's sold and supported by the experts - its authors

Please send me:

- ☐ Amstrad PCW disk-only  
BrainStorm-I enclose £29.99.  
The manual is on disk in both  
LocoScript and ASCII text formats.  
☐ Further information.

£29.99  
all inclusive



My name is \_\_\_\_\_

My address is \_\_\_\_\_

Tel. \_\_\_\_\_

Please make your cheque out to BrainStorm Software Ltd. Our address is  
18 Courtlands Close, Ruislip, Middlesex HA4 8AX. Tel: 0895 677845.



## ON TEST

### Lock up your daughters

One of the handier features common to most spreadsheets is the ability to Lock or Protect cells, rows or columns. The 8000 Plus office is known for its enthusiasm for fiddling. In order to ensure that swathes of work were not lost most of the cells in the screens shown here were locked and bolted. This of course led to much cursing as beeps emerged from the PCW whenever protected cells were attacked.

## SUPERCALC2

£49.95 • Amsoft/Sorcim (091 567 3395) • All PCWs

The manual which accompanies SuperCalc is probably one of its most obvious assets. It assumes little or no prior knowledge and even has a section at the back called 'Ten Minutes to SuperCalc' which will lead the beginner through a few light exercises.

Once loaded, the first thing that strikes about SuperCalc (apart from that capital C) is the fact that the HELP is so easy to get at – in fact SuperCalc won't let itself load if its Help file isn't available on the disc.

On first loading, you will find yourself in the top left hand corner of the spreadsheet (A1) with cells all of a uniform width. This can be altered as can most of the spreadsheet parameters; for example, whether numbers and text are right or left justified. Windowing is available as are many scientific functions.

|      | A                   | B                                  | C                 | D | E |
|------|---------------------|------------------------------------|-------------------|---|---|
| 1:   | DIXIE BOYS BIG BAND | Song Writers Data-Base 1988-89     |                   |   |   |
| 2:   |                     |                                    |                   |   |   |
| 3:   |                     |                                    |                   |   |   |
| 4:   | WRITERS             | ADDRESSES                          | FEES(\$ Per Song) |   |   |
| 5:   |                     |                                    |                   |   |   |
| 6:   | Rith Henry          | 1, Hampton Court, Hampton, London  | 1232.00           |   |   |
| 7:   | Claridge George     | Penguin Towers, Lucville, Hants    | 11000.00          |   |   |
| 8:   | Flannagan Alan      | The Arches, London, W1             | 2233.00           |   |   |
| 9:   | Hammerstein Roger   | The Hills, Augsburg, Austria       | 90000.00          |   |   |
| 10:  | Hooker John L       | 87, Railroad Road, Chicago, Ill.   | 44.50             |   |   |
| 11:  | McArdney Paul       | 52 Penny Lane, Kidneypool, Lancs   | 10000.00          |   |   |
| 12:  | Mozart Wilfgang     | No Fixed Abode                     | 2.00              |   |   |
| 13:  | Rotten Sidney       | 999, Anarchy Avenue, Ilford, Essex | 5.50              |   |   |
| 14:  | Webber Andrew       | The Opera House, Balham, London    | 8000.00           |   |   |
| 15:  | Webber Lloyd        | 14 Cats Crescent, Glamorgan        | 7300.00           |   |   |
| 16:  | Wesley J.H          | Vicarage House, Hymnal St, Slough  | 5505.00           |   |   |
| 17:  |                     |                                    |                   |   |   |
| 18:  |                     |                                    |                   |   |   |
| 19:  |                     |                                    |                   |   |   |
| 20:  |                     |                                    |                   |   |   |
| 21:  |                     |                                    |                   |   |   |
| 22:  |                     |                                    |                   |   |   |
| 23:  |                     |                                    |                   |   |   |
| 24:  |                     |                                    |                   |   |   |
| 25:  |                     |                                    |                   |   |   |
| 26:  |                     |                                    |                   |   |   |
| 27:  |                     |                                    |                   |   |   |
| 28:  |                     |                                    |                   |   |   |
| 29:  |                     |                                    |                   |   |   |
| 30:  |                     |                                    |                   |   |   |
| 31:  |                     |                                    |                   |   |   |
| 32:  |                     |                                    |                   |   |   |
| 33:  |                     |                                    |                   |   |   |
| 34:  |                     |                                    |                   |   |   |
| 35:  |                     |                                    |                   |   |   |
| 36:  |                     |                                    |                   |   |   |
| 37:  |                     |                                    |                   |   |   |
| 38:  |                     |                                    |                   |   |   |
| 39:  |                     |                                    |                   |   |   |
| 40:  |                     |                                    |                   |   |   |
| 41:  |                     |                                    |                   |   |   |
| 42:  |                     |                                    |                   |   |   |
| 43:  |                     |                                    |                   |   |   |
| 44:  |                     |                                    |                   |   |   |
| 45:  |                     |                                    |                   |   |   |
| 46:  |                     |                                    |                   |   |   |
| 47:  |                     |                                    |                   |   |   |
| 48:  |                     |                                    |                   |   |   |
| 49:  |                     |                                    |                   |   |   |
| 50:  |                     |                                    |                   |   |   |
| 51:  |                     |                                    |                   |   |   |
| 52:  |                     |                                    |                   |   |   |
| 53:  |                     |                                    |                   |   |   |
| 54:  |                     |                                    |                   |   |   |
| 55:  |                     |                                    |                   |   |   |
| 56:  |                     |                                    |                   |   |   |
| 57:  |                     |                                    |                   |   |   |
| 58:  |                     |                                    |                   |   |   |
| 59:  |                     |                                    |                   |   |   |
| 60:  |                     |                                    |                   |   |   |
| 61:  |                     |                                    |                   |   |   |
| 62:  |                     |                                    |                   |   |   |
| 63:  |                     |                                    |                   |   |   |
| 64:  |                     |                                    |                   |   |   |
| 65:  |                     |                                    |                   |   |   |
| 66:  |                     |                                    |                   |   |   |
| 67:  |                     |                                    |                   |   |   |
| 68:  |                     |                                    |                   |   |   |
| 69:  |                     |                                    |                   |   |   |
| 70:  |                     |                                    |                   |   |   |
| 71:  |                     |                                    |                   |   |   |
| 72:  |                     |                                    |                   |   |   |
| 73:  |                     |                                    |                   |   |   |
| 74:  |                     |                                    |                   |   |   |
| 75:  |                     |                                    |                   |   |   |
| 76:  |                     |                                    |                   |   |   |
| 77:  |                     |                                    |                   |   |   |
| 78:  |                     |                                    |                   |   |   |
| 79:  |                     |                                    |                   |   |   |
| 80:  |                     |                                    |                   |   |   |
| 81:  |                     |                                    |                   |   |   |
| 82:  |                     |                                    |                   |   |   |
| 83:  |                     |                                    |                   |   |   |
| 84:  |                     |                                    |                   |   |   |
| 85:  |                     |                                    |                   |   |   |
| 86:  |                     |                                    |                   |   |   |
| 87:  |                     |                                    |                   |   |   |
| 88:  |                     |                                    |                   |   |   |
| 89:  |                     |                                    |                   |   |   |
| 90:  |                     |                                    |                   |   |   |
| 91:  |                     |                                    |                   |   |   |
| 92:  |                     |                                    |                   |   |   |
| 93:  |                     |                                    |                   |   |   |
| 94:  |                     |                                    |                   |   |   |
| 95:  |                     |                                    |                   |   |   |
| 96:  |                     |                                    |                   |   |   |
| 97:  |                     |                                    |                   |   |   |
| 98:  |                     |                                    |                   |   |   |
| 99:  |                     |                                    |                   |   |   |
| 100: |                     |                                    |                   |   |   |

Supercalc shows its sort command and becomes a database

Entering commands and data is achieved with a minimum amount of fuss from an input line at the bottom of the screen. You have to separate the entry of text from numerics (or functions) by the use of the " key (pressing this must precede the insertion of the former, for example).

Commands are

entered by first using the / key. In this latter case, you are given plenty of prompting, maybe even a little too much for

the experienced user who has just hit the wrong number by accident.

It's only when you need to output the fruits of your formulations that a problem manifests itself: printing. SuperCalc dislikes prettifying anything, even printed reports, and getting those reports in the form you want can prove trying.

In conclusion, as a tool for the beginner or the adept spreadsheeter, SuperCalc is extremely useful.

## THE CRACKER

£49.95 • Newstar Software (0245 265017) • All PCWs

Cracker is full of surprises. Firstly the grid which is the basis of any spreadsheet. When you get into the program, you find that there is no grid. You have to build this up yourself which is not necessarily a bad thing as it means that any extraneous details are avoided and the PCW can concentrate on the real business of calculation.

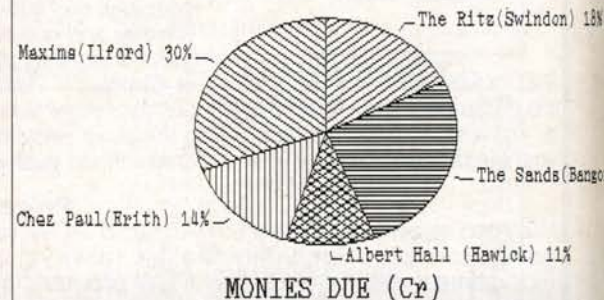
Once the basic spreadsheet is set up, which can take a minute or so, you meet the first real pain in the proceedings. Cracker will only understand co-ordinates in upper case. This may be a pernickity point but once you have become adept at producing your formulae and are rushing about the sheet, you may find the constant beeping when you hit 'a' instead of 'A' starting to wreck your concentration; and it's wholly unnecessary at that.

The second surprise with Cracker is that a package with as much to offer as this does should have a manual which tries its damndest to confound you at every turn. It suffers no beginners and gives no quarter.

Unlike SuperCalc, or even the help pages which come with Advantage software's Public Domain Spreadsheet, the Cracker not only leaves a great deal to be desired but actually has a great deal which is desirable and which it seems to obscure. The best advice here is to experiment for all you are worth in order to get the most from the spreadsheet.

The single point which raises The Cracker above the common herd must be its ability to produce graphs. Eighteen of them to be exact. These range from the straightforward histogram, through Hi-Lo line graphs to the impressive looking pie chart. All of the graphs may be printed to the screen, giving you the opportunity to clarify the layout before printing, or even turning the PCW into a visual aid for meetings or conferences. Once you've got everything the

### The Dixie Boys Big Band Annual Touring Budget



The cracker graphically illustrates how well it works

## Converting to the Preached!

SuperCalc files (these have the .CAL suffix) store data in an esoteric form which cannot be read by other programs. Equally other programs will create files which are Greek to SuperCalc.

In order to get around this seemingly intractable problem, SuperCalc comes with a utility called .SDI or Super Data Interchange. In theory, this converts .CAL files to either CSV (Comma Separated Value files), SDF files (SuperData Format) or .VC (VisiCalc...one of the early spreadsheets) files and back again. In very simplistic terms, it does this by use of good old Ascii, the supposed common language for computers.

In the same way that making an Ascii file (pronounced Askey to those who wish to talk about it) in LocoScript will strip the text of all control characters such as underlines and bolds, the production of a .CSV file in SuperCalc will remove formulae, repeated underlining or frills generally leaving you with no-nonsense raw data. This may seem like something of a disincentive to conversion. It isn't. This raw data is the very stuff of computing life and the more of it you create for your own use, the more use you will get from your initial investment.

If you can use data created by SuperCalc with other applications surely the inverse must be true. For once this much abused paradigm works. If you have a Comma Separated file, such as one created in dBase or another file handling language you should be able to convert it for use with SuperCalc. Suddenly huge vistas of use appear. For example, you might create a database in Basic and then want to carry out some serious analysis of the information therein. Theoretically, you should be able to do this.

|             | MAX ROWS | MAX COLS | GRAPHICS | WINDOWING | MAXIMUM SHEET SIZE | STATISTICAL FUNCTIONS | FINANCIAL FUNCTIONS |
|-------------|----------|----------|----------|-----------|--------------------|-----------------------|---------------------|
| SUPERCALC 2 | 255      | 63       | No       | Yes       | 31k                | Yes                   | Yes                 |
| THE CRACKER | 255      | 52       | Yes      | Yes       | 19k                | Yes                   | Yes                 |
| MINI-OFFICE | 100      | 100      | Yes      | Yes       | 368k               | No                    | Yes                 |
| ADVANTAGE   | 53-60    | 26       | No       | No        | 35k                | No                    | No                  |



Free space: 064978 Left Auto-update Editing File: BROUHER.SPR  
Cell B014 - Formula---/C1A1S  
Contents :SUM(B7:B11)

| THE DIXIE BOYS BIG BAND |                |              |            |                |
|-------------------------|----------------|--------------|------------|----------------|
| TOURING BUDGET 1988-89  |                |              |            |                |
| MERCHANDISING           |                |              |            |                |
| PRODUCTS                | COSTINGS       | MARKUP-UP(%) | TOTALS(%)  | TOTALS(£)      |
| Tee-Shirts              | 1000.00        | 15.00        | 1150.00    | 1150.00        |
| Posters                 | 599.00         | 33.00        | 197.67     | 796.67         |
| Badges                  | 454.00         | 45.00        | 204.30     | 658.30         |
| Programs                | 455.00         | 20.00        | 91.00      | 546.00         |
| Dolls                   | 1000.00        | 55.00        | 550.00     | 1550.00        |
| <b>TOTALS</b>           | <b>3508.00</b> | <b>N/A</b>   | <b>N/A</b> | <b>4700.97</b> |
| <b>PROFIT(£)!!</b>      | <b>1192.97</b> |              |            |                |

Mini Office Professional shows the simple formula SUM (B7:B11) in the top left corner.

way you want it, it can produce some reasonably high quality copies on the printer.

Finally, Cracker really is much stronger than it lets on. Most certainly not easy for the beginner but with perseverance it becomes well worth the effort due to its sheer power and utility.

## MINI OFFICE PROFESSIONAL

£29.95 • Database Software • (0625 878888)  
• All PCW's

Note that this review refers to Mini Office version 1. If you are using this and do not have John Hughes guide to Mini Office - All In One Business Computing (Sigma Press) - then it would be a good idea to get a copy. The manual which accompanies Mini Office simply will not help.

The spreadsheet section of Mini Office is, well, useful. With SuperCalc and Cracker you have a Sort routine which enables you to use the sheets as databases - this is lacking from Mini Office. As a database is provided with the suite however this is not a dramatic omission.

The spreadsheet itself is a good solid example of the genre. It offers various functions such as SUM, which will save you having to type in A1+B1+C1+D1. You are also able to repeat cells, rows or columns in either Absolute or Relative form. In effect this means that an entry such as A1+B1 which appears in cell D3 may be moved to cell Z13 and made to read A1+Z1.

Entering data, text, numbers or formulae, is a piece of cake - or rather pie chart - with Mini Office. For example, if you enter 234 the program will assume that you are entering a numeric string, whereas if the entry begins with a letter Mini Office assumes you are entering text. In fact the only two data entries which you have to signify are functions, using ALT F and text strings, ALT S, if they need to extend across more than one cell.

These functions are common to most of the spreadsheets examined here. Mini Office really offers a good, standard spreadsheet which, when used in conjunction with the other utilities in its suite, add up to a strong business orientated unit. If you wish to use scientific functions or intend to use your spreadsheet intensively for in-depth analysis then it would probably be a better idea to get Supercalc or Cracker. If, however, you are looking for a personal account manager or a one person business analyser then Mini Office will do the job.

Finally, if you were going to buy Mini Office anyway - for its word processing perhaps - you would be getting a good spreadsheet for nothing. It is easy to use, quick and will produce graphics.

## PUBLIC DOMAIN SPREADSHEET

£5.00 • Advantage Software (0242 224340) • All PCW's

Only a fiver! Yes, well so far we have been looking at offerings from large software houses. This, however, is an example of a public domain product, and not a bad example either.

Everything you get for the five pounds comes on one disc (itself £3). This includes the

manual which is a fairly good piece of work.

The spreadsheet itself is similar in appearance to the others we have looked at. The familiar grid is there, more limited in size than the commercial offerings and in your ability to customise it

(you can't resize the cells though you can write text across several of them). You enter commands, which are shown on a small menu, at the input line to the bottom left of the screen.

Advantage's Public Domain Spreadsheet is one of the best things a beginner could get their hands on. Entering data is easy enough, if slow. It entails informing the program of the type of data, and deleting any data already within the cell. In effect you have self-locking cells. Movement around the sheet is an arduous affair but speed isn't everything.

From what we have already seen the limitations of this package are manifold. You don't have access to functions such as SUM and so have to enter such expressions in long hand. This spreadsheet is very limited with a disturbing tendency to crash when entering data or functions below line 50 (Advantage have informed the author of this) but despite these caveats there is an ease of use and value for money here which makes it ideal for those testing the waters.

| THE DIXIE BOYS BIG BAND       |                 | LEGAL COSTS (LELL) |                 |
|-------------------------------|-----------------|--------------------|-----------------|
|                               |                 | EXPECTED RETURN    | EXPECTED LOSS   |
| LEGAL FEES(£)                 |                 |                    |                 |
| England                       | -500.00         | 600.00             | -1000.00        |
| France                        | -300.00         |                    |                 |
| Italy                         | -330.00         |                    |                 |
| USA                           | -899.00         | 9000.00            |                 |
| <b>TOTALS</b>                 | <b>-2129.00</b> | <b>9600.00</b>     | <b>-1900.00</b> |
| <b>TOTAL PROJECTED LOSS</b>   | <b>-4029.00</b> |                    |                 |
| <b>TOTAL PROJECTED PROFIT</b> | <b>5571.00</b>  |                    |                 |

Quit File Next Number Expression Delete Calculate

The Public Domain spreadsheet figuring it all out.

## Pretty Polly Printout

For more attractive printouts it's possible to send printer output to a file instead of the printer using the Put utility. Instead of using the program's own output to the printer, this creates a page image ASCII file which is easily dealt with by Protex or LocoScript for final brushing up.

## In conclusion

There, then, are the four spreadsheets on the market at the moment. We did try to get hold of Scratchpad Plus, a spreadsheet which used the RAM disc memory of the PCW to extend the size of the workspace available. Indeed it is still advertised but at this time cannot be had for love nor money.

Those which we have examined have their strengths and flaws. The two top-of-the-range packages, SuperCalc2 and Cracker are truly powerful and offer far more functions than we've space to mention here. Of the two SuperCalc is probably the best all round package. As for Mini Office, if you were going to buy the entire package you would be getting a good spreadsheet but not a great one. The public domain program is only really useful for small scale use or as a learning aid.

The golden rule with all of them is to experiment as much as possible. Among the applications available to the PCW user, the spreadsheet rates very highly indeed in terms of the power it offers.

| SCIENTIFIC FUNCTIONS | TABLE HANDLING | FORCED CALCULATION | ORDER OF CALCULATION | SORT/ARRANGE DATA | IMPORT/EXPORT DATA | MAXIMA/MINIMA | NUMBER FORMATTING |
|----------------------|----------------|--------------------|----------------------|-------------------|--------------------|---------------|-------------------|
| No                   | Yes            | Yes                | Yes                  | Yes               | Yes                | Yes           | Yes               |
| Yes                  | Yes            | Yes                | Yes                  | Yes               | No                 | Yes           | Yes               |
| No                   | No             | Yes                | Yes                  | No                | Yes                | No            | No                |
| No                   | No             | Yes                | No                   | No                | No                 | No            | No                |



**BBD**  
• DUST •  
COVERS

## GET SMART

**BBD**  
• DUST •  
COVERS

### Protect Your Computing Equipment With BBD PROFESSIONAL DUST COVERS

- In today's economic climate where equipment failure costs time and money protecting your hardware from wear and tear is the smart thing to do and the smart way to do it is with dust covers from BBD Professional Range.
- Manufactured from top quality washable nylon and attractively finished with contrasting piping BBD covers are simply the smartest protective covers available.
- BBD covers can be washed and ironed without fear of fading or shrinking and will never crack or lose their shape.
- With all these superlative features you might expect BBD covers to be a little expensive. Nothing could be further from the truth.

#### AMSTRAD PCW 8256/8512: £11.95

In light grey with green piping. 3 piece set

#### AMSTRAD PCW 9512: £13.95

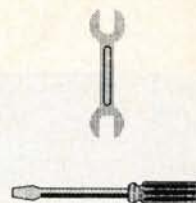
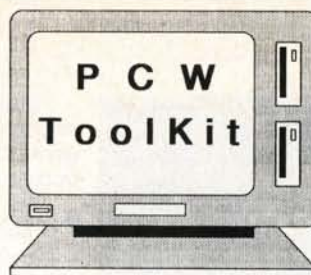
In ivory with green piping. 3 piece set

- BBD also offer a wide range of matching covers for the printers from only £5.50. These include Amstrad DMP 2000, 3000, 4000 and LQ3500, and a wide selection from Brother, Canon, Citizen, Epson, Star etc., etc. Generally covers for 80 column printers are £5.50 and for 132 column £6.50

### GET SMART! GET BBD! BBD DUST COVERS

The Standish Centre  
Cross Street, Standish, Wigan WN6 0HQ  
Telephone: 0257 425839 Ext 32 Fax: 0257 423909

DEALER ENQUIRIES WELCOME



is a new product for the PCW8256 and PCW8512

It is designed to allow anyone to examine, copy and recover information from damaged or corrupted discs. Although ToolKit is a full-function disc editor, you don't need to be an expert to use it! The manual too is comprehensive but straightforward, and includes features such as a 'First Aid' section for quick answers in an emergency.

PCW-Toolkit costs just £19.95

*How much is YOUR data worth ?*

MFU for PCW8256 and PCW8512 ..... £49.95

Universal Multi-Format Utility. Allows the PCW to emulate other CP/M formats, analyse discs, transfer files from other systems and much more.

2in1 for PCW8256 and PCW8512 ..... £49.95

Transfer files to and from IBM-PCs on disc, format PC discs on the PCW.

5.25" Disc Drives for PCW8256 and PCW8512 ..... £139.95  
for PCW8512 ..... £159.95

All prices INCLUDE V.A.T. and Postage to U.K. and BFPO addresses.  
Please write or phone for our catalogue; overseas enquiries welcome.

**MOONSTONE**  
computing

Strathclyde Business Centre  
Clyde Street  
CLYDEBANK G81 1PF  
041 - 941 - 3120

The Professional Serial/Parallel Interface  
For The Amstrad PCW 8256 8512 & 9512

AVAILABLE NOW

A Choice of Interfaces From

**SCA**  
SYSTEMS

SCA Professional £49.95

SCA Professional Plus £59.95

Both prices include VAT please add £1.55 for postage

\*100% Compatible\* \*Money Back Guarantee\*

Both Models Feature

\*Full Duplex RS232 Serial Port\* \*Full 8 Bit Parallel Port\*

\*Secondary 2 Wire Serial Port\* \*75 to 19200 Baud\*

\*Printed User Manual\* \*New Stylish Black Case\*

Professional Plus Has All The Above +

\*Real Time Clock\* \*Calendar\* \*Demo Disk\*

\*Rechargeable Battery Back-Up of Time And Date\*

\*Automatic CP/M Time & Date Stamping\*

DEALER ENQUIRIES WELCOME

SCA Systems Ltd  
61 Ferringham Lane  
Ferring West Sussex



DIRECT ORDER  
HOTLINE  
0903-700288



ALSO AVAILABLE

THE SCA REAL TIME CLOCK MODULE

**£19.95** inc

AS REVIEWED IN THE MAY ISSUE OF  
8000 PLUS



# HARD THINKING

It can be difficult enough thinking using the original kit; as John Connelly explains, computers can find it even harder

There are basically two types of people working in Artificial Intelligence. On the one hand, there are those who spend their whole time trying to define 'intelligence' so that, one day, they might be able to replicate it in a machine. They want to build a machine which is in itself intelligent.

On the other hand, there are those in Artificial Intelligence (AI to its friends) who prefer to program computers to behave or act intelligently. The distinction is not as slight as it seems.

It was once thought that the ultimate in intelligent machines would be the chess-playing computer. Today, competent chess programs abound, available for all popular micros, including the PCW, and programs written for powerful mainframe computers are capable of playing at Grandmaster level. Few, if any, would be rash enough now to claim that these programs render a computer intelligent. They do, however, make a computer behave intelligently. By painstakingly looking at every possible move at high speed, a computer can be made to look as if it is playing chess at an advanced level. And, of course, effectively, it is.

It achieves the same results as a clever human chess-player but by non-clever means (although AI has contributed a number of 'intelligent' search routines which have speeded up chess programs, and others, by considerable factors).

The AI dreamer is vastly outnumbered by the AI realist. And yet, if anyone at all, it is the dreamer who springs to most people's minds when Artificial Intelligence is mentioned. I intend, in this short series of articles, to look at the realistic and practical side of AI and, perhaps, to give by simple examples some insight into the kinds of problems that AI researchers have to grapple with on a larger scale.

It is a field, therefore, with a number of disparate aims, most of which have still to be achieved. Whether or not these aims are in fact achievable does not really matter since, like the space programme, AI has

generated and will continue to generate many highly useful spin-offs as research progresses.

## Logoing on

One of these spin-offs is to be found on our friendly PCW. On side four of the PCW's systems discs is a programming language called Logo, originally developed from LISP as a means of applying AI techniques in education. Its ability to manipulate symbols (letters, words, sentences, lists) in a relatively simple way gives us the ideal (and cheap) means of demonstrating some basic AI techniques and issues.

A certain Technical Editor, before he became Technical Editor, once summarily dismissed Logo thus: 'Logo is eminently suitable for writing comedy routines.' Well, I have not written a comedy routine, but I have used Logo to write some poetry (*a similar occupation - ex Technical Editor*). Consider poet's corner (overleaf); four verses, similar in structure and meaning, but only one of them written by a real live human poet.

Before you glance at the end of the article for the answer, reflect on the implications of the verses. What are the yardsticks by which you might gauge what is a 'good' poem and what is doggerel? Or do you prefer to depend on

good old intuition? And even if you are able to isolate the original fairly quickly, how do you justify your choice?

If you can't justify your decision, or if you simply chose the wrong one, does that mean that the ersatz verses are adequate attempts at poetry? And if, like me, you accept that writing poetry is a reasonably clever thing to do, are the three fakes therefore the work of an intelligent computer?

Of course not. But they are the work of a computer which has acted intelligently. A better way to think of it might be to see the computer's actions as an extension of my intellect. I gave the computer a selection of words to use as well as a structure within which to use them, but the PCW itself came up with the particular word-orders in the verses.

## Sentenced to death

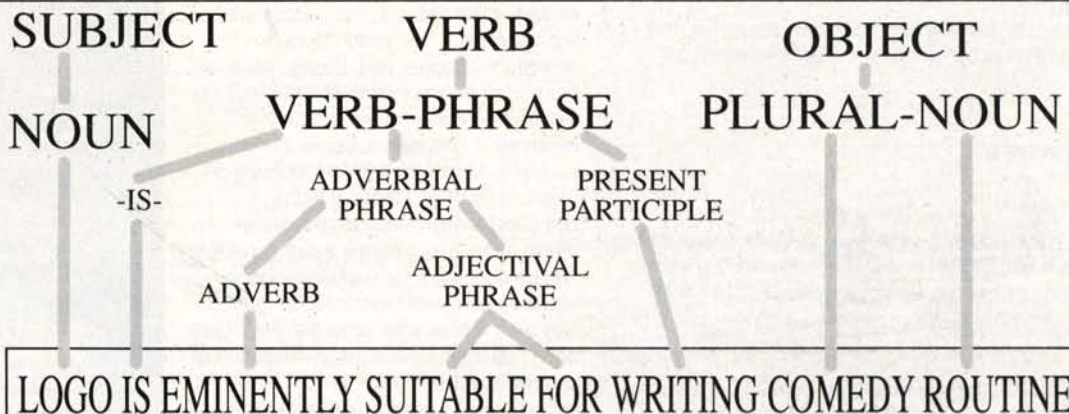
How was it done? Take as an example our esteemed ex Technical Editor's declaration; I can demonstrate how Logo can be made to put some understandable words of English together. In the Phrase Box you will see the sentence parsed (taken to bits). This is what I have done with Steve's sentence. The sentence is basically composed of:

**SUBJECT VERB OBJECT** - which can be clarified as:

**NOUN VERB-PHRASE PLURAL-NOUN**

The nouns at the beginning and end are easily dealt with. But the verb-phrase can be further de-composed into:

**'is' ADVERBIAL-PHRASE PRESENT-PARTICIPLE**





## Preservation order

To preserve your work on disc, type **save "any\_name"** which will save every procedure under the title given. Individual procedures cannot be saved easily: it's all or nothing. Typing **load "any\_name"** will load it all from the disc.

Note that the particular version of Logo on the PCW has a rather silly trait: it will not recognize commands in upper-case – so any word that is an in-built Logo primitive (as they are called) must be entered in lower-case.

original generated versions of the Logo. The others are Logo-versions. Let us for this beginning. It's the one McGrath. Tom, PARADOX by the Scottish poet and playwright, from a poem entitled 'The original verse comes right/wrong' You were

The 'is' I have decided to keep and it will remain in all new versions of the sentence, but the uppercase parts-of-speech will be replaced by words which will fit the syntax (the structure) of the sentence. However, the adverbial-phrase can be de-composed yet again into:

### ADVERB ADJECTIVAL-PHRASE

The adverbial-phrase will consist of an adjective and a preposition (for, at, etc). These will be dealt with together.

If we begin by thinking in terms of the overall task – to reconstitute Steve's sentence using a random selection of suitable words – the main procedure (we will call it comedy) will look like this:

```
to comedy
noun
verb - phrase
plural - noun
end
```

This little piece of code includes reference to procedures which have not even been written yet, but this demonstrates the flexibility of Logo. We can program as we plan. Within comedy there are three sub-procedures, each of which will contain a number of sub-sub-procedures. The end result, we hope, will be a sentence which mimics the structure of Steve's hard-hearted declaration. The complete program can be seen in the Comedy Box.

## Play listy for me

The three procedures called directly by comedy are **noun**, **verb\_phrase** and **plural\_noun**. The procedure **noun** selects a name 'randomly' from a list of possibilities (in this case, eight, but these can be freely changed). If a name has more than one element, it has to be contained within brackets. So, [Alan Sugar] is bracketed, while his alter-ego, God is not, since the latter has only a single element. Make sure, however, that the whole list is bounded by external brackets (as all lists in Logo have to be).

The selection is made by another little procedure called **choose** which has

been written specially to pick out, in a random fashion, one item from a given list of any length (except a 'list' with no members, the empty list). **choose** is used in each of the other procedures whose task it is to select words for the sentence. **plural\_noun**, **adverb**, **adjectival\_phrase** and **participle** are all identical in form to **noun**. The last three are all called by the procedure, **verb\_phrase**.

The final procedure, **space**, prints 'character 32', the space character. Without this, all the words in the new sentence would run together.

The command type writes to the screen and leaves the cursor on the same line. The command **pr** (short for 'print') writes to the screen and then follows with a line-feed and a carriage return; in other words, the cursor moves to the next line. This is why type is used for words in the middle of the sentence, while **pr** is used for the last word in the sentence.

Once the whole program has been entered into the Logo editor, pressing <EXIT> will take you back to the original Logo screen (called its Text Screen) and each procedure will be confirmed by the messages:

```
comedy defined
noun defined
```

and so on. An individual procedure can be re-worked by typing **ed "comedy"** (or whatever the procedure-name is, and note the leading speech marks only) while **edall** will dump every defined procedure back into the editor.

## Errors of comedy

So long as the program has been entered properly, simply typing **comedy** [ENTER] will produce a sentence mimicking Steve's original, using a selection of the words listed in the program. To save you the bother of typing comedy every time you want to produce a new sentence, try **repeat 20 [comedy]** which will produce twenty sentences one after the other.

At this stage, the sentences produced by comedy are less important than the method of their production. Given the relative difficulty in mimicking a simple sentence like Steve's, you can imagine the complexity involved in trying to reproduce a longer text. Poetry, because of its word-economy and its grammatical flexibility, is easier to reproduce than meaningful and mature prose.

Many AI researchers are working on these kinds of problems at highly complex levels. One goal of Artificial Intelligence is to produce a computer that can be controlled by spoken dialogue between user and machine. Along the way who knows what other benefits it will bring? Just think what the combination of an 'intelligent' computer and a sophisticated speech synthesizer (see 8000 Plus, issue 30) could achieve. ■

## Comedy box

```
to comedy
noun
verb_phrase
plural_noun
end
```

```
to noun
type choose [[Steve Patient] [Margaret Thatcher]
God [Eric Clapton] [William Shakespeare]
[Alan Sugar] [The Amstrad PCW]
[Kylie Minogue]]
space
end
```

```
to verb_phrase
type "is space
adverb space adjectival_phrase space
participle space
end
```

```
to space
type char 32
end
```

```
to adverb
type choose [quite totally really not mildly wildly
regrettably particularly]
end
```

```
to adjectival_phrase
type choose [[perfect for] [ideal for] [useless at]
[incapable of] [responsible for] [calm while]
[unfit for] [overrated at]]
end
```

```
to participle
type choose [loving protecting [dealing with]
[writing for] kissing processing [dining with]
[appealing to]]
end
```

```
to plural_noun
pr choose [[Young Tories.] [Z80s.]
[Glasgow Celtic.] [flesh eaters.]
[Neighbours.] sheep. men. women.]
end
```

```
to choose :options
make "choice count :options
op item (1 + random :choice) :options
end
```

## Poets corner

We will by this tenderness  
celebrate no treason,  
nor turn from friends,  
be peacemakers in season.

Let us in our intimacy  
give no Judas kiss,  
not betray neighbours,  
be carefree in timelessness.

Let us for this love  
commit no crime,  
not destroy others,  
be calm in time.

We can by our friendship  
realize no evil whim,  
nor offend strangers,  
be tranquil in the interim.

## A Logo Turnkey Disc

Take a blank formatted disc for the A drive and copies of your two PCW master discs. Using PIP, copy the following files from the master discs onto the new disc:

J14CPM3.EMS  
SUBMIT.COM  
SETKEYS.COM (all on side 2)  
KEYS.DRL  
LOGO.COM (both on side 4)

(You may not have J14CPM3.EMS, there are other versions. Just so long as it's the file on side two with EMS at the end.) Now, using RPED or a text editor, create a new file on the Logo turnkey disc called PROFILE.SUB. This file should contain just two lines:

SETKEYS KEYS.DRL  
LOGO

Now whenever you want to use Logo, simply turn on your PCW, insert the Logo turnkey disc (or reset) and Logo will load automatically.





## AMSTRAD

We repair Amstrad models 464, 664, 6128, 8256, 8512, PC1512 and Amstrad Monitors.

All repairs carry a 3 month warranty.

★ Maintenance now available in West London ★

**PHONE US NOW FOR DETAILS**

## SUREDATA

DEPT+, UNIT 6  
STANLEY HOUSE  
STANLEY AVENUE  
WEMBLEY, MIDDX HA0 4JB

TELEPHONE: 01-902 5218

## EXPERT RIBBON RE-INKING

| Printer         | Re-ink |         | New ribbon |         |
|-----------------|--------|---------|------------|---------|
|                 | Black  | Colour* | Black      | Colour* |
| PCW 8000 fabric | £1.65  | £2.15   | £3.00      | £3.75   |
| PCW 9512 fabric | £1.90  | £2.40   | £2.90      | £3.60   |

\*Red, Blue, Green, Brown or Purple\*

Many other fabric ribbons can also be re-inked.

**Telephone for prices: 08907 50965 to 8pm.**

Also...PCW 9512 carbon-film cassette ribbon replacement: £2 each plus 99p per order.

PCW 8000 carbon-film reversal (1 extra life) £1.25

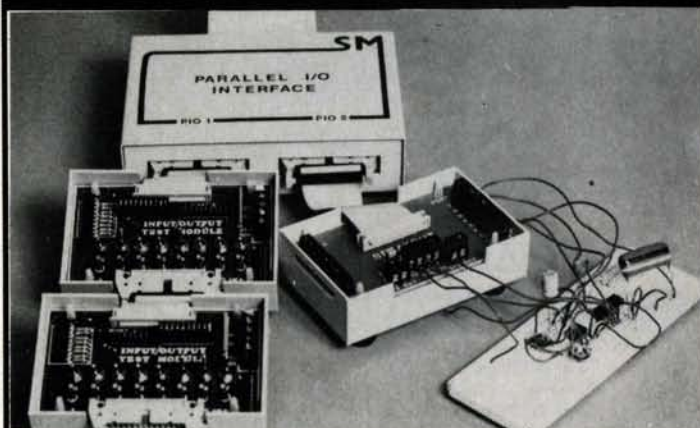
\*\*\* **INTRODUCTORY OFFER: If you have not used our service before, DEDUCT 10% from total order price.**

Post cassette(s) with instructions and payment to:

**ALADDINK (Dept 80), Eyemouth,  
Berwickshire TD14 5AP**

## COMPUTER REPAIRS

ROBOTICS \* PLANT MONITORING CONTROL  
SECURITY \* DATA LOGGING \* CENTRAL HEATING \* ETC



Industrial engineers, electronics hobbyists, schools and colleges are using this interface and associated modules to develop microprocessor control applications on the AMSTRAD PCW and then replacing the PCW with our Z80A based single board micro-controller

### PARALLEL I/O INTERFACE £55.95

**Z80A Single Board Micro-Controller - only £94.95!**

|                         |        |                 |        |
|-------------------------|--------|-----------------|--------|
| I/O Test Module         | £39.95 | Breakout Module | £18.95 |
| 8 channel A to D Module | £39.95 | D to A Module   | £29.95 |

Please add VAT at 15% - P&P included

Specialising in microprocessor data logging and control applications, we provide a complete service covering any or all of the stages from initial hardware and software design through manufacture to final installation.

Phone/send for full details - OEM, trade and overseas enquiries welcome

### SM ENGINEERING

Telephone 0323-766262

'St Georges' Lion Hill Stone Cross  
Pevensey East Sussex BN24 5ED



## DOUBLE T PRODUCTS THURSTON TECHNIQUES



**NEW** - there are now 16 versions of landscape and portrait tempmates covering all scale pitches  
**SPECIAL OFFER** Set of 8 portrait £22 with a tree pageboy ruler

All items are designed, written or produced by Brian Thurston who is a Member of the Institute of Word Processing and qualified Further Education Teacher.

**TEMPMATE** - a clear acetate overlay. Shows all the correct tab, margin and line positions. Saves time, paper and bad language. Reviews: Computing with Amstrad PCW and Amstrad PCW Magazine both said "excellent". Your Amstrad PCW said "wonderfully simple idea".

**PAGE BOY** is a clear PVC Word Processing ruler. New version has 13 choices of character pitch, line spacing and metric measurements.

**TT PATIENCE** Six of Brian Thurston's favourite games of Playing Card Patience on Disc. Given full marks by Your Amstrad and 8000 Plus for addictiveness.

**TEMPDISC** a data disc choc-a-bloc with Layouts & Templates for LocoScript. **TEMPDISCS 1D & 2D** are double sided discs. **TEMPDISCS 8 2 and 9** are Double Density, available in both 3" and 5.25" versions.

**TEMPDISC 1D** includes, 13 letterheads, minutes, agendas, invoices, annual statement, shipping document, weekly diary, authors file, script writers files for film, TV and stage, hotel menu, plain & bordered labels & envelopes, simple family tree, phone list, bar chart, tournament & league tables, seasonal greetings, star signs, tickets, disc labels, screen art, party invitations, calendar and diary and small "organiser" templates.

**TEMPDISC 2D** - 1D files; PLUS 10 Christmas LocoChar Characters (holly, lantern, church, tree, candle, wine glass etc.) expanded use of the Phrases. Std feature, a full "Settings Std" file and a "Template. Std" file with ready made Stock Layouts.

**TEMPDISC 8 2** - 2D files; PLUS LocoMail features: nine automatic invoice options, analysis sheet, 28 option metric conversion, tournament chart and seeding, a season's fixtures worked out by LocoMail, self numbering tickets. 1st day cover envelopes, C.V., Personal File, Will etc.

**TEMPDISC 9** - 8 2 files; but without the Christmas Characters and within the restrictions of the 100 character daisywheel.

Reviews: Your Amstrad; "professional... a worthwhile purchase". Computing with the Amstrad PCW; "oozing with suggestions, files act as a showcase for the features of LocoScript... excellent investment". Official Amstrad PCW Magazine; "excellent... enormous scope... astounding what can be done with ingenuity".

18 Danby Terrace, Exmouth, EX8 1QS

All prices include P&P & VAT



|                     |                     |       |
|---------------------|---------------------|-------|
| All Word Processors | TempMate            | £4.95 |
| All Word Processors | Page Boy Ruler      | £2.45 |
| Special Offer       | TempMate & Page Boy | £5.95 |

|                   |             |        |
|-------------------|-------------|--------|
| AMSTRAD ALL PCW's | TT Patience | £15.95 |
|-------------------|-------------|--------|

|                                |              |        |
|--------------------------------|--------------|--------|
| TEMPDISC for LOCOSCRIPT Users; |              |        |
| Locoscript 1                   | TempDisc 1D  | £17.95 |
| Lo'Script2 8256/8512           | TempDisc 2D  | £17.95 |
| Lo'Script2/LocoMail 8512       | TempDisc 8.2 | £19.95 |
| Lo'Script2 9512                | TempDisc 9   | £19.95 |

|                                    |          |        |
|------------------------------------|----------|--------|
| For LOCOFILE Users                 |          |        |
| Synonyms (706k Disc)               | WordDisc | £16.95 |
| One of these Discs with a TempDisc |          | £29.95 |

### THURSTON TECHNIQUES

Freepost, Exmouth, Devon EX8 2YZ  
Telephone (0395) 277496





# CYCA LIMITED

287 Caledonian Road, London N1-1EG

Tel: 01-700-4004. Fax: 01-700-4677

## AMSTRAD PCW RANGE

The worlds most popular word processors.

### PCW 8000 Series

|   |         |
|---|---------|
| PCW 8256 - Single drive/256K Memory/VDU Keyboard/Dot Matrix printer |         |
| Software  | £320.00 |
| PCW 8512 - Same as above but double drive/512K memory               | £420.00 |

### THE LATEST PCW 9512

|   |         |
|---|---------|
| Single drive - 512K memory/ VDU/Keyboard/ Daisywheel Printer/Software | £435.00 |
|---|---------|

### NEW SECOND DISK DRIVE - for the 8256 and 9512

|                                |         |
|--------------------------------|---------|
| FD (2nd Drive) for 8256 & 9512 | £115.00 |
|--------------------------------|---------|

|                                     |        |
|-------------------------------------|--------|
| Amstrad RS232 Centronics/Interface  | £45.00 |
| 8256 Memory upgrade 8512            | POA    |
| CYC PCW Printer extension 8256/8512 | £11.00 |
| (Pack includes Power Extension)     |        |
| CYC PCW Printer Extension 9512      | £9.50  |

## DATA fax

By Kempston  
Diary - Paperback - Notepad - Calendar  
**£28.00**

## PCW SOFTWARE - DATABASES

|                                 |        |
|---------------------------------|--------|
| Comsoft Combase II              | £30.00 |
| Sage Retrieve                   | £42.00 |
| Sage Magic Filer                | £43.00 |
| Datastore (Digita) (Version II) | £28.00 |
| Digita Supertype (Version II)   | £16.00 |
| Database Manager (At Last)      | £18.00 |
| Masterfile 8000                 | £29.00 |
| dBase II                        | £66.00 |
| Database Manager Plus           | £25.00 |

### LOCOFILE

|  |        |
|--|--------|
| New 'Pop-Up' database for Locoscript 2 | £25.00 |
| Please specify 8256, 8512, or 9512     |        |

## PCW ACCOUNTS

|                            |        |
|----------------------------|--------|
| Sage Popular Accounts      | £56.00 |
| Sage Popular Accounts Plus | £88.00 |
| Sage Popular Invoicing     | £41.00 |
| Sage Popular Payroll       | £41.00 |
| Map Integrated Accounts    | £89.00 |
| Map Payroll                | £36.00 |
| Comsoft Stock Control      | £36.00 |
| Money Manager Plus         | £25.00 |

## SPREADSHEETS PCW

|                    |        |
|--------------------|--------|
| Amsoft Supercalc 2 | £34.00 |
| Cracker II         | £29.00 |

## GRAPHICS PCW

|          |        |
|----------|--------|
| Dr Draw  | £30.00 |
| Dr Graph | £30.00 |

### FLIPPER 2

"Like having an extra PCW"  
new version - easier to install, more options  
**£29.00**

## PCW DUSTCOVERS

Attractive Set. Keep your PCW Dust Free.  
VDU Keyboard & Printer  
(Please Specify 8256/8512 or 9512)  
**£8.65**

## PCW DESKTOP PUBLISHING

|   |        |
|---|--------|
| Fleet St. Editor Plus                       | £37.00 |
| The Database Publisher (software)           | £20.00 |
| Database Desktop Publisher (with AMX Mouse) | £52.00 |
| Kempston Mouse                              | £55.00 |
| Kempston Mouse with Fleet Street Editor     | £95.00 |

## ... STOP PRESS ...

### DESKTOP PUBLISHING

|  |        |
|--|--------|
| 13 Fonts, Clip Art, Typesetting, Cut & Paste Up, Graphic Design. |        |
| Stop Press (Software only)                                       | £30.00 |
| Stop Press & AMX Mouse   | £58.00 |

## 3" AMSTRAD DISKS



|                             |        |
|-----------------------------|--------|
| AMSOFT                      |        |
| Double Sided/Single Density |        |
| Box of 10                   | £20.00 |
| 2 Boxes of 10               | £39.00 |
| 5 Boxes of 10               | £95.00 |

Discount for volume orders - Please Call

|                               |        |
|-------------------------------|--------|
| Locoscript 2 with Locospell 2 | £33.00 |
| Locospell 2                   | £17.00 |
| Locomail 2                    | £25.00 |
| Locofont                      | £16.00 |
| Locofont II                   |        |
| (with different fonts)        | £12.00 |

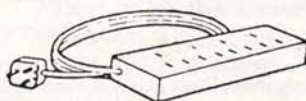
## WORD PROCESSING

|                      |        |
|----------------------|--------|
| Tasman Tasword 8000  | £16.00 |
| Tasman Tasprint 8000 | £10.00 |
| Tasman Taspell 8000  | £12.00 |
| Tasman Tas Sign      | £20.00 |
| Arnor Protext        | £35.00 |
| Arnor Pocket Protext | £27.00 |
| Neword II            | £43.00 |

|                              |       |
|------------------------------|-------|
| The Clear Head 3" Disk Drive |       |
| Head Cleaner Our Price       | £6.50 |

|  |        |
|--|--------|
| MAP Integrated Accounts.   |        |
| - Sales, Purchase, Nominal Ledgers and stock control.              |        |
| Comprehensive reporting of debtors, creditors.                     |        |
| Invoicing statements VAT Calculations, profit and loss and balance |        |
| Sheet  | £90.00 |
| Map Payroll  | £39.00 |
| Map Stockcontrol   | £39.00 |
| Money Manager Plus   | £25.00 |
| Stockmarket  | £27.00 |

### 4 way mains distribution socket



With built in Arrester to give protection from mainsborne spikes  
Surge Protected Plug ..... **£9.50**

**ALL PRICES EXCLUDE VAT**  
Export, Government & Education  
Orders Welcome. Callers Welcome by  
appointment. All prices subject to  
change without notice - all goods subject  
to availability.

## Mini Office PROFESSIONAL



|  |        |
|--|--------|
| Mini Office Professional 5 programs                    | £18.50 |
| Mini Office Professional Plus (including Spellchecker) | £29.00 |
| Spellchecker/Thesaurus only                            | £14.50 |

## DISK STORAGE BOXES

### NEW IN

|                                |        |
|--------------------------------|--------|
| 3" Disk Storage Box (Holds 21) | £10.50 |
| 3" Disk Storage Box (Holds 50) | £19.00 |
| 3" Tiered Stacker Ten          | £6.91  |

## PCW COMMUNICATIONS

Linnet V21/V23 (needs RS232 Centronics Interface)

|                             |         |
|-----------------------------|---------|
| - Autodialing and answering |         |
| - Hayes Compatibility       |         |
| - 32 Names/Number store     |         |
| - 3 Help menus - Best Value | £129.00 |

### Micracom WS4000

|   |         |
|---|---------|
| - Auto hayes - Standard (with connecting cable) |         |
| straight into user port                         | £156.00 |

### Sage ChitChat Software

|                                      |         |
|--------------------------------------|---------|
| Sage Combo (ChitChat + Linnet Modem) | £182.00 |
| Sage ChitChat software               | £78.00  |
| Dialup Communication software        | £65.00  |



with Master Scan you can  
reproduce any picture on  
your PCW screen - and  
print it out as many times  
as you like.  
**£49.00**

Incorporates graphics into packages such as The Desktop Publisher, Fleet St. Editor Plus and Newsdesk. Send scanned images via a Modem to other PCW's anywhere!

## Master PAINT

As well as creating drawings from scratch you can load in scanned images from Master Scan and manipulate them using Master Paints versatile tools. Then you can remove superfluous detail, fine tune the drawing using the zoom feature, and add text **£13.00**



**MASTERSCAN  
AND  
MASTERPAINT  
£55.00**

## joycestick

**OUR PRICE  
ONLY £30**

|  |                                     |
|--|-------------------------------------|
| * Contour grip design                                      | * Joystick Interface                |
| * Deluxe Positive response button                          | * Easy installation                 |
| * Conventional firing button                               | * Plugs into 8256 expansion port    |
| * Rubber suction cup footing for stable one-hand operation | * Wide range of compatible Software |
| * Contour groove for sure grip                             | * Full one year guarantee           |
| * Fully utilizes 8256 hardware                             |                                     |

\* Price includes FREE Ace Flight Simulator Game!!

Telephone: 01-700-4004. Fax: 01-700-4677

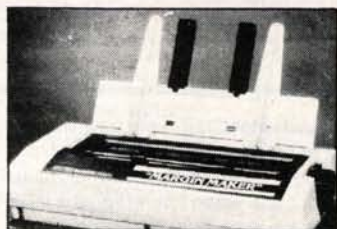


**Mouse Pad**  
£5.00

### PCW AND GENERAL UTILITIES

|                                    |        |
|------------------------------------|--------|
| Mass Easy Labeller .....           | £23.00 |
| Rotate .....                       | £17.00 |
| Digital Pascal MT+ .....           | £34.00 |
| Digital C Basic Compiler .....     | £34.00 |
| Tas Sign .....                     | £20.00 |
| Iankey Crash Typing .....          | £17.00 |
| Prospell .....                     | £20.00 |
| Arnor C .....                      | £38.00 |
| Arnor Maxam .....                  | £38.00 |
| Digital Personal Tax Planner ..... | £20.00 |
| Digital Business Controller .....  | £65.00 |
| Touch and Go .....                 | £17.00 |

Iankey Two Finger Touch Typing .....£17.00  
typing tutor for people who can type with 2 fingers



### MARGIN MAKER.

Single sheet guide for the 8256/8512 .....£8.75

### DOT MATRIX PRINTERS

#### EPSON

|   |          |
|---|----------|
| Epson LX800 150cps/80col .....          | £185.00  |
| Epson SQ2500 Ink Jet .....              | £875.00  |
| Epson LQ500 150 cps/50nlq .....         | £295.00  |
| Epson LQ850 220 cps/73nlq .....         | £445.00  |
| Epson LQ1050 132 col 220cps/73nlq ..... | £570.00  |
| Epson LQ2550 New In .....               | £925.00  |
| Epson DFX5000 (high speed) .....        | £1295.00 |
| Epson FX850 .....                       | £329.00  |
| Epson FX1050 .....                      | £415.00  |

**THE**  
**star**  
COMPUTER PRINTERS

|  |         |
|--|---------|
| Star LX10 Multifont Printer .....        | £185.00 |
| Star LC10 Colour Printer .....           | £215.00 |
| Star NX15 120cps 30nlq 136col .....      | £289.00 |
| Star LC24-10 Latest 24 Pin Machine ..... | £289.00 |

### ALL PRICES EXCLUDE VAT

### AMSTRAD PRINTER

The new Amstrad LQ5000  
24 Pin Printer  
Our Price £360.00

|  |         |
|--|---------|
| DMP4000 136 col 200 cps F/T 50 n/q ..... | £265.00 |
| DMP 3250 di .....                        | £165.00 |
| Amstrad LQ3500 24 Pin .....              | £270.00 |

### DAISY WHEEL PRINTERS

|                               |         |
|-------------------------------|---------|
| Juki 6200 30 cps .....        | £325.00 |
| Juki 6200 + Sheetfeeder ..... | £469.00 |

### PANASONIC PRINTERS

|                                     |         |
|-------------------------------------|---------|
| Panasonic KX-P1124                  |         |
| Draft - 160 cps, NLQ - 63 cps ..... | £289.00 |
| Panasonic KX - P1180                |         |
| Draft - 132 cps, NLQ - 38 cps ..... | £165.00 |

### AMSTRAD PCW PRINTER MAINTENANCE KIT



For 8256/8512  
Removes ink deposits maintains  
print quality  
Our Price £14.00

### LASER PRINTERS

Epson GQ3500 .....£1295.00  
Now comes with 2 FREE font cards and HP ID Card  
(with 1 year on site maintenance)

|                          |          |
|--------------------------|----------|
| HP Laser Jet II .....    | £1445.00 |
| Panasonic KX-P4450 ..... | £1595.00 |
| Canon LBP MKII .....     | £1395.00 |
| Canon 8HT-D/Bin .....    | £1995.00 |
| Canon 8HT Duplex .....   | £2195.00 |
| Brother HL8 .....        | £1445.00 |
| Star Laser 8 .....       | £1450.00 |

(accessories available please ring)

### BOOKS (no VAT Payable)

|   |        |
|---|--------|
| Mallard Basic by Amstrad .....                | £9.50  |
| Programming PCW By Ian Sinclair .....         | £7.50  |
| Step by Step Guide to Locoscript .....        | £4.95  |
| All in One Mini Office Professional .....     | £11.50 |
| Desktop Publishing with the Amstrad PCW ..... | £9.50  |
| Locoscript by Ian Sinclair .....              | £9.50  |

### PCW RIBBONS (min order 2's)

| PRINTER  | Amstrad | QTY 2+ | QTY 5+ | QTY 10+ |
|--|---------|--------|--------|---------|
| PCW 8256/8512 Nylon .....                          | £4.30   | £3.90  | £3.50  |         |
| PCW 8256/8512 Carbon .....                         | £4.95   | £4.50  | £4.00  |         |
| PCW 8256/8512 Colour .....                         | £5.00   | £4.75  | £4.50  |         |
| PCW 9512 Nylon .....                               | £3.50   | £3.30  | £3.00  |         |
| PCW 9512 Carbon .....                              | £4.75   | £4.50  | £4.00  |         |
| PCW 9512 Colour .....                              | £5.20   | £5.00  | £4.75  |         |
| Colours: Red, Blue, Green, Brown, Orange or Purple |         |        |        |         |

### PCW 9512 DAISYWHEELS

#### AVAILABLE TYPE STYLES

| Product Code        | Typeface          |
|---------------------|-------------------|
| Courier 10          | Prestige Pica 10  |
| Recta 10            | Orator 10         |
| Letter Gothic 10/12 | Prestige Elite 12 |
| Script 12           | Mini Gothic 15    |
| Thesis PS           |                   |

Each £5.25

### PRINTER PAPER

|  | Price per Box |
|--|---------------|
| 80 Column Listing paper                          |               |
| 11 x 9.5 2000 1 part plain 60gsm (Fanfold) ..... | £13.50        |
| 11 x 9.5 2000 1 part plain 80gsm .....           | £19.00        |
| 11 x 9.5 1000 2 part NCR .....                   | £21.50        |
| A4 - 2000 1 part plain 70gsm .....               | £19.00        |
| A4 - 1500 1 part plain 90gsm .....               | £18.50        |
| 132 Column Listing Paper                         |               |
| 11 x 14.5 2000 1 part Plain 60gsm .....          | £17.00        |
| 11 x 14.5 2000 1 part M/Rule 60gsm .....         | £17.50        |

For Large quantity price please call

### MASTERFILE 8000

Menu controlled, can deal with up to 8 separate  
data files at once.....£29.00

### DBASE II

Very powerful and complex database. A market  
leader in business computing .....£66.00

### LABELS

|                       |       |
|-----------------------|-------|
| 1 Across (1000) ..... | £6.00 |
| 2 Across (2000) ..... | £8.50 |

### LASER LABELS

### EDUCATIONAL

|                                     |        |
|-------------------------------------|--------|
| 2 Across (2000) .....               | £13.50 |
| 3 Across (2000) .....               | £13.50 |
| Magic Maths (Age 4-8) .....         | £14.50 |
| Maths Mania (Age 8-12) .....        | £14.50 |
| Better Maths (Age 12-16) .....      | £14.50 |
| Better Spelling (Age 9-Adult) ..... | £14.50 |
| Biology I (Age 12 - 16) .....       | £14.50 |
| Chemistry I (Age 12-16) .....       | £14.50 |

### LEISURE SOFTWARE

|                            |        |
|----------------------------|--------|
| Cyrus Chess .....          | £12.00 |
| Colossus 4 Chess .....     | £14.00 |
| Batman .....               | £11.00 |
| Scrabble .....             | £13.00 |
| The Pawn .....             | £17.00 |
| Trivial Pursuits .....     | £14.00 |
| Head Over Heels .....      | £11.00 |
| Starglider .....           | £17.00 |
| Silicon Dreams .....       | £14.00 |
| Ace .....                  | £14.00 |
| Strike Force Harrier ..... | £14.00 |
| Knight Orc .....           | £14.00 |
| Match Day II .....         | £12.00 |
| Tetris .....               | £14.00 |
| Clock Chess .....          | £14.00 |
| Jinxter .....              | £15.00 |
| Steve Davis Snooker .....  | £11.00 |

Professional Adventure Writing System (P.A.W.S.)  
by Gilsoft £18.00

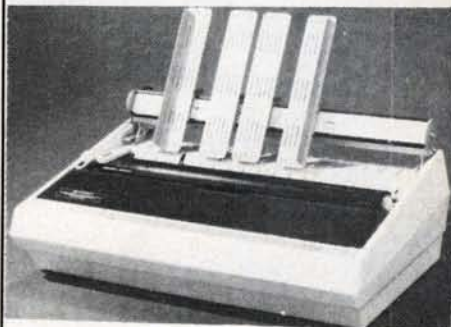
### Tomahawk

Sophisticated helicopter flight simulator.  
Can be used with joystick .....£13.00

### Fish

Underwater world under threat from  
anarchist gang. Excellent graphics .....£19.50

Locomotive 24pin Printer Driver Disk £20.00  
Specify 8256/8512 or 9512



"MAXAFIT"  
for the 9512

### NEW PRODUCT FROM THE MAKERS OF 'MM3'

Adjustable and accurate, "Maxafit" is suitable for  
printers with wide or narrow carriage and avoids  
misplaced printing and uneven margins. Fits most  
'typewriter style' computer printers - Saves wastage of  
expensive headed paper.

Save time and paper with this simple to  
use cut sheet Locator and Aligner.

£29.00 + VAT

## TELEPHONE ACTIONDESK

**01-700-4004.**

10 am - 8pm Mon - Sat.

Cyca Limited, 287 Caledonian Road, London N1 - IEG. Callers welcome by appointment





# BENCH MARK

Even the healthiest among us can find that hours spent in front of the

PCW result in an aching back. E D Coote, with worse problems than most, offers his solution

I purchased my PCW9512 in May of this year in a desperate attempt to find a way of writing which would not cause me pain. I am a retired teacher of craft who had to leave the profession due to health problems; I suffer from cervical spondylitis. This manifests itself as pains in the arms whenever I attempt to do anything, whether it be knocking in a nail or writing a letter. If it goes on too long, I know about it and have to stop.

Being a teacher of Craft, I am well-versed in the subject of ergonomics but know nothing at all about computing. I wasn't even aware of 8000 Plus until August of 1988 when I purchased a PCW so that I could find out more about word processing.

As I became more proficient, there came the moment when I had to do something for real. I had to write a letter. Now this was no ordinary letter but a 'Round Robin' which my wife and I send to our family of five children and their families once a month. It was a very busy period and the news extended to five pages. About the second page, problem number two made itself known to me; my arms were hurting from having to hold them high enough to reach over the keyboard.

## Designer desk

Problem three was quickly on the scene as well when my wife realised that the reason she could not find some of her books was because they were supporting my screen. "Find some of your own books", was her retort as she marched off with her possessions.

The round robin letter was eventually finished in small bursts of activity and I set my mind to the problem of designing a stand which would contain the three pieces of equipment in a manner that would allow me to use it without causing pain either to my neck or arms.

The word "Ergonomics" is really a fanciful name given to the study of the human being in relation to his use of machinery or similar artefacts. The classic example is that of the car racing driver who must be able to control his machine at speeds of around two hundred miles an hour for hours on end. He must be comfortable and all the controls must come easily to hand without the driver taking his eyes off the road. The design of typist's desk is another example. The surface of the desk is lower than that of a normal desk so that the typewriter keyface is low enough not to create a strain on the typists' arms in having to hold them too high.

## Computing can damage your health

Keyboard operators actually have their very own industrial disease (which means that the government recognises that it's caused by your job). This is the hard to pronounce Tenosynovitis, damage to the tendons of the wrist.

But there are other problems such as sore eyes from staring at the flickery screen for too long - you should take your eyes away for at least fifteen minutes in every hour during prolonged work sessions.

The most common problem is postural; it is very important, if you plan to write more than the occasional letter on the PCW, to make sure your chair keeps your back straight, that your wrists are slightly above the keyboard with your forearms horizontal. The monitor screen should be at ninety degrees to your line of sight, which means either directly in front of your head or tilted if below that level, and between two foot and two foot six away from you.



The finished product: an ergonomically designed workstation.



I started off seated at the chair I would use and measured the distance from the floor to the top edge of my thighs, twenty three inches. I added an inch on for clearance in getting in and out so noted that I required twenty-four inches.

### Measuring up

The keyboard is wedge-shaped so I noted the height of the front and back – one inch and one and half inches respectively. Using some scrap material, I made a mock up of the surface to take the keyboard and gradually raised the back edge until the angle of the keyboard felt correct to work on.

The back edge of this surface gave me a starting point for the disc drive and screen unit. Measurement was quite difficult but I got over the problem with use of a large try-square. By measuring along and then up to certain points, I was able to determine the angles that were other than a right angle.

I cut a piece of hardboard to represent the front face of the screen and disc drive unit and stood it up behind the keyboard. It seemed too close to my face so I angled it back a bit until it felt right and also was square on to my line of sight. The hard board was supported in place and lo, I had determined the front position for a shelf which would support the printer.

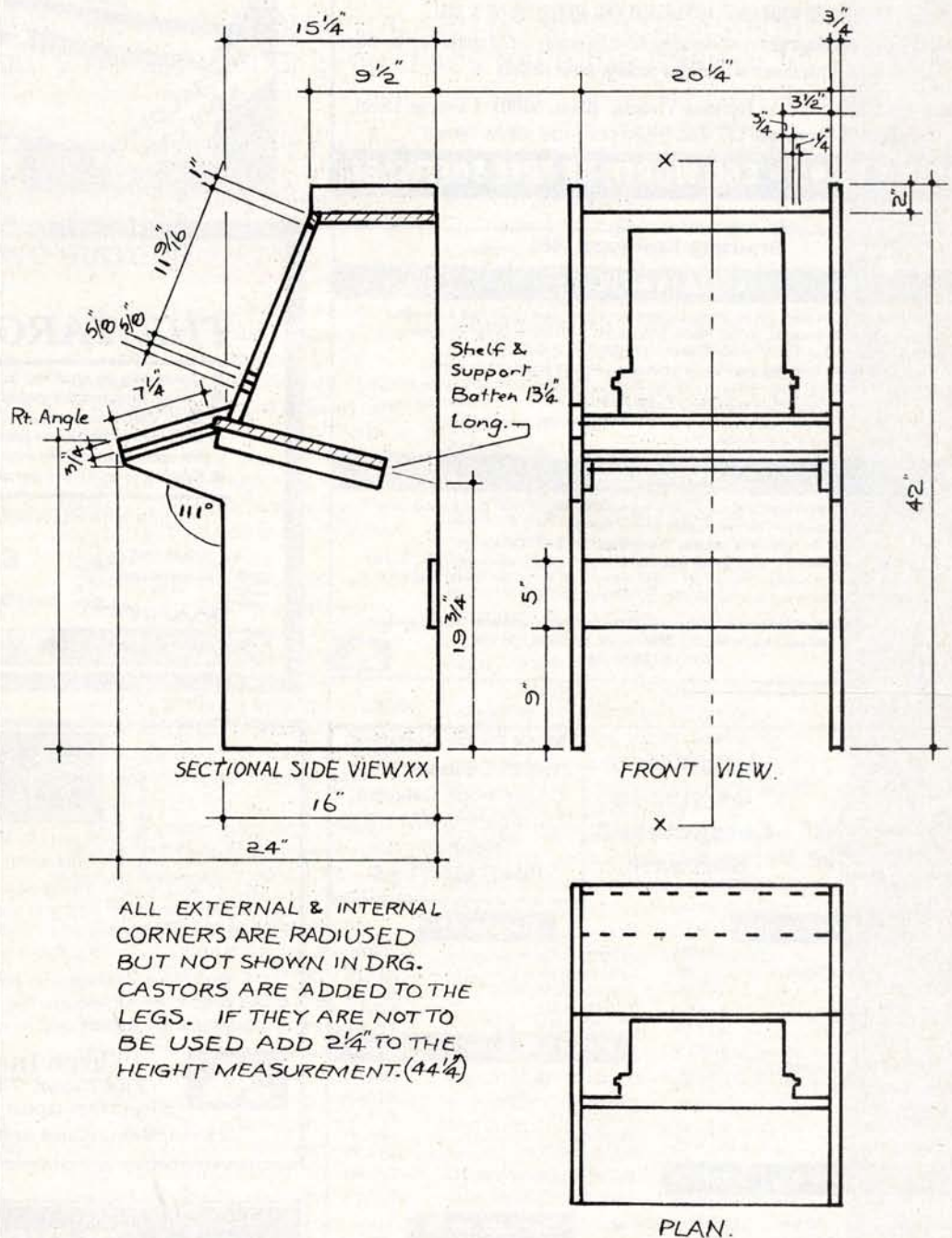
The printer requires nine and a half inches of shelf from front to back and I had then ascertained the depth of the complete unit. A surprisingly slim two feet from front to back. Even more amazing, the total height to the printer shelf from the floor was only forty two and a half inches. I had been prepared for it to be more.

Again using my large try-square, I worked out all the measurements related to the floor and transferred them on to paper. The width measurements were related to the size of the keyboard and printer which are virtually the same, eighteen inches. I made the necessary allowances for a set of castors, applied a liberal dose of aesthetics and had a design I could get out of a standard size of fibre board, three quarters of an inch thick (an eight by four sheet).

### Assembly required

Using the same principles as a dressmaker, I laid out my measurements on the board so as to get the least wastage and using an electric jig saw, cut out all the shapes. A word of warning here, if you are using the dining room chairs and table as a temporary workshop make sure you don't put the jigsaw straight through them.

Once all the pieces are cut out and the edges cleaned up they can be glued together with PVA glue. The whole thing needs holding overnight in sash cramps while it hardens.



These plans suited Mr Coote. They can, however, be easily modified to suit your own requirements.

Alternatively, the unit could be screwed together using long chipboard screws or even the little corner fixings used by kitchen cupboard manufacturers, all of which are available from most hardware stores. Once assembled the desk was given three coats of red enamel paint for a smooth, striking, surface. Finished at long last, my unit has been counted a big success. But, to be honest, despite the new desk I have not managed to work for long periods without pain. This isn't the fault of the design, merely that I cannot type without looking at the keyboard – but I'm working on it!

### Steps back in amazement

You can imagine my surprise when I opened 8000 Plus to find that a commercial firm has an almost identical design to mine. Add a couple of ears to the top shelf to prevent the printer falling off and a set of castors and we have a clone.



## NOT MANY PEOPLE KNOW THAT...

- Direct Mail accounted for about a billion pieces of mail last year.
- This represents 12% of the Post Offices activities and will double in the next five years, creating an extra 20,000 jobs.
- There is an insatiable demand for mailing lists of every kind.
- Supplying this demand could provide a profitable part-time income from home.
- "HOW TO RUN YOUR OWN MAILING LIST BUSINESS" is a comprehensive starter manual which includes everything (other than a PCW), you need to get going in this exciting business. INCLUDING YOUR FIRST 1000 NAMES AND ADDRESSES ON 3" DISC.
- At £19.95 this package represents excellent value for money and of course we offer a no fuss guarantee if you choose to return the package within 10 days.

Please send cheque or P.O. to: **Tableaux Vivants, (Dept. 8000), 1 George Street, Llantrisant, Mid Glamorgan CF7 8EE.** (Please state model and disc format).

**ONLY £19.95 - £60 WORTH OF FREE SOFTWARE**

### Bradway Software (8P)

#### LETTA-HEAD PLUS

The most versatile PCW utility yet for designing and printing your own business & personal stationery; letterheads, receipts, orders, labels, posters etc. Create the design on screen, select the required format & print all the copies you need.

- Library of 15 different fonts and the integral font editor. \*All characters proportionally spaced in a choice of 81 sizes. \*Screen windows may be inverted, scrolled & erased.
- Enclose any area in a box of any thickness. \*Graphics lines, arcs, circles & shade for logo design. \*Icon editor for easy inclusion of symbols. \*Print headings in a choice of 18 sizes. \*Design labels to 4" x 2" in size. \*Price £18.00

#### WORDFINDER

At last help for all you crossword and word game enthusiasts! WordFinder gives you on line access to a large vocabulary to aid those jaded memory cells.

- 19,000 unique words \*5,000 proper names. \*Word lengths of 3-12 characters.
- Search by word, skeleton e.g. g-y. \*Simple retrieval of plurals, adjectives & adverbs. \*Superb anagrammer; input more letters than target or less letters than target (for Scrabble cheats).
- \*Addlib utility to add extra words to the dictionary. \*Price £13.00.

Prices include P&P within Europe. Please add £2 per program world wide airmail postage. "Hillsett", Upper Padley, Grindleford, Sheffield, S30 1JA  
Phone (0433) 30799

**VIDI - PCW**  
 THE AWARD WINNING VIDEO  
 DIGITISER/FRAME GRABBER



NOW **£79.95** \* INC  
 \* LIMITED PERIOD ONLY

SPECIAL OFFER  
 SAVE £20!!

ROMBO LTD, UNIT 6, FAIRBAIRN RD,  
 LIVINGSTON, EH54 6TS  
 TEL: 0506 414631

## BE YOUR OWN TAROT EXPERT WITH THE TAROT PROGRAM

- Cards can be shuffled or specific cards can be selected.
- Cards selected are positioned in the celtic cross spread.
- Each card and each position of the celtic cross interpreted.
- Impressive output to printer, over 5 pages of interpretation for each spread. Provision for entering clients name & date.
- Facility to edit the interpretation and create your own files.

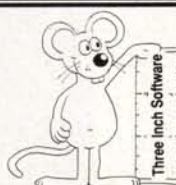
For use with PCW8256, PCW8512 or PCW9512

**£24.99** (INCLUDING P&P)

Send Cheques/P.O.'s Made payable to K.F. Heywood

10 St. Johns Road, Yeovil  
Somerset, BA21 5NG

PLEASE SPECIFY MODEL OF COMPUTER



### 3 Inch Thesaurus for the PCW 8512/9512 with LocoFile

If you are lost for a word when typing a LocoScript document, the 3 Inch Thesaurus is the answer.

Being a LocoFile datafile means that you can call up the Thesaurus any time you are working with LocoScript - just press a few keys, type in the word you want to change, and you jump straight to a list of related words

The 3 Inch Thesaurus is available by mail order for **£14.95**.

If you need a copy of LocoFile (for LocoScript 2) at the same time, we can supply that for **£28.95** (please specify whether for an 8512 or 9512).



**Three Inch Software,**  
2nd Floor, 73 Surbiton Road,  
Kingston upon Thames, KT1 2HG



Access/MasterCard orders telephone 01-546-2754



### A Complete Service in Computers & Software.

**Miles Better Software**  
219/221 Cannock Road,  
Chadsmoor, Cannock  
Staffordshire, WS11 2DD  
Telephone:  
(0543) 466577/8/9

#### Word Processing

|                                  |        |
|----------------------------------|--------|
| Locoscript 2 .....               | £22.00 |
| Locoscript 2 + Locospell 2 ..... | £32.00 |
| Locospell 2 .....                | £17.50 |
| Locomail 2 .....                 | £25.00 |
| Locofont .....                   | £17.50 |
| Locofont 2 .....                 | £12.00 |
| 24 Pin Drivers 8256/8512 .....   | £21.00 |
| 24 Pin Drivers 9512 .....        | £21.00 |
| Tasword 8000 .....               | £17.95 |
| Tasspell 8000 .....              | £11.95 |
| Tasprint .....                   | £17.95 |

#### Desktop Publishing / Graphics

|                                 |        |
|---------------------------------|--------|
| AMX Stop Press .....            | £32.00 |
| AMX Stop Press + Mouse .....    | £64.00 |
| AMX Desktop + Mouse .....       | £58.00 |
| Desktop Publisher + Mouse ..... | £59.00 |
| Master Scan .....               | £54.00 |
| Master Scan + Paint .....       | £59.00 |
| Master Paint .....              | £15.00 |
| Digital Research Draw .....     | £29.00 |
| Digital Research Graph .....    | £29.00 |

#### Integrated Packages

|                                  |        |
|----------------------------------|--------|
| Mini Office Professional .....   | £22.95 |
| Mini Office Professional + ..... | £34.95 |
| Spell Checker + Thesaurus .....  | £18.95 |
| Plan It .....                    | £15.00 |

Just a selection from our vast range of computer software.

**All goods sent within 24 hours.**

Please make cheques, postal orders payable to:

**"Miles Better Software"**

Access/Visa orders please phone for immediate dispatch.  
Visitors Welcome.



VISA

#### Databases

|                          |        |
|--------------------------|--------|
| Masterfile 8000 .....    | £34.00 |
| Datastore II .....       | £29.00 |
| Locofile 8256/8512 ..... | £25.00 |
| Locofile 9512 .....      | £25.00 |

#### Utilities & Program Development

|                               |        |
|-------------------------------|--------|
| Turbo Pascal .....            | £69.00 |
| C-Basic Compiler .....        | £29.00 |
| Pascal MT+ .....              | £29.00 |
| Rotate .....                  | £29.00 |
| Datafax .....                 | £32.95 |
| Easy Labeller 8256/8512 ..... | £29.00 |
| Easy Labeller 9512 .....      | £29.00 |

#### Spreadsheets

|                   |        |
|-------------------|--------|
| Supercalc 2 ..... | £37.00 |
| Cracker II .....  | £39.00 |

#### Accounting

|                            |        |
|----------------------------|--------|
| Accounts Plus .....        | £95.00 |
| Popular Accounts .....     | £69.00 |
| Invoicing .....            | £42.00 |
| Payroll .....              | £42.00 |
| Money Manager Plus .....   | £27.95 |
| Personal Tax Planner ..... | £18.95 |
| Stockmarket .....          | £29.95 |

## 3" DISKETTES

### For Amstrad PCW - CPC

\* Individually boxed - Available now from stock \*

10 diskettes £2.25

20 diskettes £1.95

20+ diskettes £1.89

Prices excluding VAT and P&P

**MANSALL DESIGN**  
**Tel: 01 449 4066**



# CHEAP AND CHEERFUL

Hunting for the right public domain program can be time-consuming. Tim Smith finds out whether compilation discs have the answer.

Public domain, or PD as it is more generally known, is a phrase much bandied about in the computer world. It conjures up visions of hackers hunched over strangely configured terminals waiting to access NASA or MFI...MI5 even. The reality, as usual, is quite different and has nothing to do with such murky goings on.

**F**or once, the use of the word 'public' is fully deserved. What actually occurs, in very general terms, is that enthusiasts write programs to which they give up their copyright. These programs can then be freely distributed.

In practice, nothing is for free and you will usually be charged a copying fee – up to three pounds from some libraries. Technically, this covers the cost of time and media since most public domain carries specific injunctions against either selling it or including it in any commercial package. People using these programs are expected to put any improved version they might write back into the public domain for the use of others.

The software itself may be written in any language from good old Basic to the more fashionable C or even Assembler. It might be written by beginners or experts, you won't know until you actually try it. This means that some programs which purport to do similar jobs, for example two text editors, might turn out to reach very different levels of functionality.

Generally, the specialist libraries that hold public domain software will issue catalogues but make no attempt to put their software collections into any kind of order. Programs to do related tasks can be found scattered randomly over a variety of discs and with no indication of how they perform, what they work with or whether they have been superseded by a better version. However, a few groups and some commercial companies have tried to address this problem.

## Greatest hits

Basically, what these groups have tried to do is to pick the best of the public domain programs and concentrate on those. These people sift the large libraries for the programs that have the most features, the best documentation, or simply for related programs that will all help toward solving a particular problem.

Where these are substantial enough you simply get the one application, like the public domain spreadsheet we reviewed in this issue. Where a number of smaller utilities are all included on a single disc, they are generally known as 'compilation' discs. Like single records which are heaped together on one long player at Christmas, public domain compilations will tend to comprise the pick of the best.

Although a compilation disc will cost you more than the usual library copying charge (for the extra work involved in sorting them out) this will still be a lot less than if you'd hunted around for all the separate discs needed to build the collection yourself. This will not only save you money but might even open up a few avenues you hadn't considered.

For example, Advantage Software, who maintain one of the biggest public domain catalogues for the PCW, sell a disc which is marketed under the rather ambiguous title of Text Processing Utilities. Although this is not a word processor it does provide some useful word processing tools, such as a word counter. Its primary job, however, is to prettify text and give you weird and wonderful printouts. So, when you pay your five pounds for the disc, not only will you buy the ability to print out sideways, in banner form and in a gothic script, you will also get a utility which will create calendars for you – plus a simple spell checker. On a compilation you may well find a utility or program which will make the PCW achieve feats you had never even considered. Even better, it may lead you into improving them and contributing to the public domain yourself.

## Domain chance

There is always a limited danger that you might end up with discs packed with programs you aren't interested in. However, as you will probably have got the few utilities that you required, a database or game for example, the rest can be erased. As you will have

paid under ten pounds, normally five, for a disc (costing £2.99 itself) containing numerous files, this is not too much of a tragedy.

The public domain libraries have been garnered from all over the world. Consequently it is quite possible to find a compilation disc containing a directory utility from Sweden, a financial analysis program from America and a game from Holland. Not only does this illustrate that CP/M is an international language, but also that the PCW is heir to this internationalism.

This is not the case with the complete libraries; these tend to be collections of software from a specific special interest group (SIG) or a particular country. The CP/M User group, for example, keeps material from US groups, Holland, Australia, UK and others. However, they make no attempt to collate this collection, merely maintain it and pass it on.

The Advantage compilations have been collated with the average PCW user in mind. This 'average' person seems to be one who uses his or her PCW as a workhorse but is not overly concerned with the in-depth computing side of the machine. The CP/M User Group, on the other hand, gives access to programs of interest to anyone who has ever been near a PCW and enjoys experimenting. Using either of the groups will provide cheap insights into what is actually obtainable from the PCW.

## Public speaking

With organizations such as Advantage or the CP/M User Group, you can be fairly sure that you will get good, cheap utilities and program compilations. In the long run, waiting for these will be your best bet.

Many of the public domain discs will contain source code which you can list in order to see just how they were put together. In a few cases the programmer will include a document which explains his or her approach and the reasons for using certain routines. Browsing over a few of these will give an insight into the minds of the semi-professional programmer and might even convince you that, you too, could get a database or game into the public domain. If you don't mind spending a few pounds and are prepared to experiment a little, then public domain compilations are certainly worth a look and may even lead you into experimenting with some of the more exotic material which can be had.

## Here We Are

Advantage Software can be contacted on 0242-224-340. The person to contact at the CP/M User Group is Diana Forreder, 72 Mill Lane, Hawley, Dartford Kent, DA2 7RZ. The CP/M User Group also provide a full list of the public domain titles to members. Another reputable source of collected programs is John Ellis, who maintains the library of the defunct PCW File. Write, enclosing 42p for a catalogue, to 100 St Peters Close, Morton-on-Lugg, Hereford, HR4 8DW.

## Two Hundred into One Will Go!

Many of the compilations will contain more material than you would have thought possible. This is achieved by a process known as squeezing. This process will compress files into a far smaller space using a file compression technique. As this squeezing makes the programs unusable and text files unreadable, you will also find a program called UNSQUEEZ which reverses the process. This technique is also widely used when sending information via networks or over comms links. So, even more for your money.



## Composit Software

"...it's about time someone brought out a music processor for the PCW..." (8000 Plus)

It's here at last!



## The Composer's Pen

The music notation program for the PCW.

- Up to 99 staves.
- Up to 20-note chords.
- Comprehensive beaming and flagging.
- Any number-tuplets.\*
- Seven clefs (two in Pocket version).
- Full control of note and stave spacing.\*
- Text and standard music symbols.
- 'Cut and paste' music.
- Print the score and the parts.
- Transposition.\*

(Features marked \* aren't in the Pocket version)

Available in two versions: The Composer's Pen (Full).....£65.00

The Composer's Pen (Pocket)..£25.00

A demo version is also available for £5.00

**Cheques payable to Composit Software**

Please specify PCW 8256 / 8512 or PCW 9512 when ordering

**Tel: 021-456-1967**



All enquiries and orders to:

**Composit Software**  
29 Wells Tower  
Rodney Close  
Ladywood  
Birmingham  
B16 8RU

**Composit Software**  
**FREEPOST**  
10 Leasowe Green  
Lightmoor  
Telford  
Shropshire  
TF4 3BR (no stamp needed)

# Our reputation speaks for itself.

## Simple Accounts 11

"The easiest accounting/book-keeping program I've ever used"

Personal Computing April '89

## Card Index 2.2

"A round of applause then, for the writer of Card-Index, an elegant solution to the creation of a nice little database that anyone can use"

Amstrad PCW August '87

- Cost effective solutions to business problems
- Programs that are *truly* easy to use
- Indefinite user support — free of charge

All programs available in PC/MSDOS and Amstrad PCW formats

## Job Estimating and Product Costing

"The user guides supplied with both programs are thorough, lucid and basically, nothing short of excellent"

8000 PLUS August '88

"During the working life of your PCW, they will pay for themselves many times over"

Amstrad Professional Computing March '87

**For a FREE information pack phone (0462) 682989**

Cornix Software Limited, Spirella Building, Bridge Road, Letchworth, Hertfordshire, SG6 4ET. Telephone (0462) 682989

# CORNIX SOFTWARE



# THE LONG GOODBYE

I sat in my office watching the level of the bourbon slowly sink, like Amstrad profits. Another couple of slugs and I'd start kidding myself I could understand CP/M BDOS error messages. Being a private computer consultant can drive you crazy.

The client was a dame. A dame whose picture would melt anyone's video digitizer. There were lines on her face, maybe thirty-two of them, but she'd stayed easy enough on the eye. She'd said her name was Joyce.

"I need you to track down some discs."

"LP, compact, brake or spinal?" I quipped.

"CF2," she snapped.

"I need them bad. My supplier says there's a shortage...."

"Of all the columns in this magazine," I sighed, "you had to walk into mine."

So now it was my problem. Maybe this tied in with my April investigation. An outfit called M.D. Office Supplies had put a flashy ad in Amstrad PCW magazine. It offered discs. Five and a quarter inch discs. Three and a half inch discs. No other size at all.

Dealers... who can figure 'em?

I started out with my own dealer contact. He lived in a bad part of town, where the ads are small and cheap. Down every dark alley someone was waiting to clobber you good with VAT and carriage, not included in the advertised price. In that district, customer support meant that instead of throwing you out they carried you out. And dropped you.

"Times are hard all over," muttered the dealer, nervously shifting a wad of greenbacks from one pocket to another. "Our wholesaler, he's got a million discs back-ordered. Nothing I can do to speed them up, squire."

I got the grimy sheet of paper from my pocket. "These are the discount prices you promised you'd

hold level until...."

I'd forgotten his assistant. I spun around, one hand diving for the holster, but too late. He smiled as he slugged me behind the ear with a fat list of revised prices. My Visa card went limp like a Dali watch. On the second blow the whole world curled up and turned black as NLQ from a fresh new ribbon.

The last words I heard were, "Thirty days minimum delivery time."

My brain kept throbbing and reporting "missing address mark in frontal lobe". My mouth tasted like the toilet floor at a computer show. It was no time to be talking to the client. I was talking to the client.

"How about some results?" she said with a green light in her eyes.

I explained: "Down these mean disc manager menus a man must go who is not himself mean, who is neither tarnished nor afraid."

"I guess that means no progress."

"You got it." I patted her on the monitor, which was curved in all the right places. "Here's looking at you, kid."

Following a hunch I checked out another lead, another of the million outlets in the naked city. These were big-time mobsters with an open plan dump full of potted plants. Out of my league. One false move, and the heavy in the smart suit and tie would have me up against the wall. I'd be lucky to get out without being sold an 80386 IBM system with VGA display and laser printer.

"I want to know about discs. CF2 discs."

His laugh would have made a hyena hide nervously under the bed. "Get out of here, you small-time punk."

I got mad. He froze as I drew a bead on him with my snub-nosed RS-232 interface. "You've got contacts," I told him. "Guys who spend fifty big ones on accounts programs, and that's just to handle petty cash. Guys who know the



A page in  
the company  
of author and  
PCW pundit  
David Langford

LANGFORD

disc situation."

"So?"

I fired seven data bits over his shoulder, to show I meant business.

"You're thinking to yourself, is his RS-232 set up for seven-bit or eight-bit transmission? You're wondering, has he got one bit left? What you should be asking yourself is... do I feel lucky?"

His teeth did castanet impressions. "OK, I'll spill it. It's the import connection — some big Jap outfits have pulled out of CF2s. Only Maxell still make them. There's a famine, and the operators with big stocks plan to clean up."

It fitted together. I dived through the glass doors just before a fusillade of hype could shoot fatal holes in my sales resistance. This is a lousy stinking business, I thought as the pavement came up to hit me.

"I can't touch the Mr Big behind this," I told the client. "It's the

old story — he's out of reach. Seems he made a killing installing cheap drives in a million machines, and left the suckers to feed them with expensive discs. It's easy to get hooked... hard to kick the CF2 habit."

"I can pay," she whispered.

"Seems the operation never went over big, Stateside. Maybe the Mafia didn't like the interference, maybe the punters saw through the scam. Without that market, the Japs got leery and dropped out."

She blazed greenly at me. "So you can't fill my order. How d'you plan to stop me blowing the whistle on this sleazy consultancy business of yours?"

There's no arguing with dames. "Farewell, my lovely, until the shortage is over...."

My fist caught her smack on the power button, and she slept the big sleep.



## DATA - ACCESS

### Printer Ribbon Re-Inking Service

Have your FABRIC printer ribbon fully re-inked by the experts and save £££'s.

Our guarantee - send your used FABRIC printer ribbon plus payment and we will have it in the post and on its way back to you within 48 hours of arrival on our premises

**Black - Brown - Orange - Blue - Green - Red - Purple ribbons all re-inked in original colour**

**Trial Offer** only £1.30 per ribbon (send as many as you wish, we will even pay postage both ways!)

Send ribbon(s) plus payment to:- **Data - Access (Dept 8+)** FREEPOST, LLANELLI, DYFED. SA15 1ZZ (no stamp required)

>> Ribbon re-inkers to Educational & Local Authorities<<

(Special prices 1" Industrial - Commercial ribbons)

(77 Penylan Road - Llanelli - Dyfed SA15 1JG)

## ASTROLOGY for beginners

Teach yourself astrology using your Amstrad

Buy a Starter Pack comprising a simple program to calculate a horoscope, an introductory booklet and 2 self-teaching programs (how to interpret the horoscope).

**ONLY £12.50 No previous knowledge required**

**For ALL Amstrads (CPC, PCW, PC, PPC)**

Payment by Access/Visa, Cheque, P.O. Please state make of computer or send s.a.e. (about 9"x7") for free catalogue giving details of our wide range of programs for **PROFESSIONAL ASTROLOGERS** including complete natal interpretations and forecasting.

Also **I CHING, GRAPHOLOGY, BIORHYTHMS**, etc.

### ASTROCALC

(Dept 8000) 67 Peascroft Road, Hemel Hempstead, Herts HP3 8ER England. Tel: 0442 51809

## SCRIPT2BASE AND TEXT2BASE - THE TEXT DATABASES

**Script2Base** and **Text2Base** turn your Locoscript2 or Protext documents into a database. You mark phrases in documents "non-intrusively". Then they are compiled into a comprehensive disk index which you can search using menus and keypresses just like Locoscript.

Suppose your interest is History. You can name your disks 'English', 'American' etc. and your groups '16th-C', '17th-C', '18th-C' etc. Then name your indexes 'Battles', 'Royalty', 'Politics', 'Social', and 'Other'. Now search one of these indexes and it's easy to find what you want. Then go straight to the exact place in the document from the index, print just a few lines, browse, export a passage and combine it with other text from other documents. You can print the disk index or include the index itself in a document.

**Script2Base** includes a fast word counter, comes configured for six European languages and has a user definable character set.

**Text2Base** correctly interprets Protext's page formatting and numbering commands. (Both programs work on 8256 / 8512 / 9512.)

Call or write for the fax or send **£29.95** clearly stating the program you require.

**Encyclosoft, Hayfields Grove, Audlem, Crewe CW3 0LB**

**Tel: 0270 811890**

Locoscript 2 is a trademark of Locomotive.

Protext is a trademark of Amnor.



# PROGRAM Magic

**BUSINESS CONTROLLER**  
"Very professional. The best product around for a small business." APCW

**PERSONAL TAX PLANNER**  
"An excellent program ... I can unhesitatingly recommend PTP" APCW

**SUPERTYPE II**  
"Very simple to use ... learnt in 15 minutes ... it's font-astic." 8000 Plus

**DATASTORE II**  
"Very user friendly ... good for many business applications, real value for money" APCW

**◆ BUSINESS CONTROLLER ◆**

From assisting day to day book-keeping, VAT Returns, etc., to complete End of Year accounts, if you wish. Designed for the small to medium sized business, whether a sole trader, partnership, or limited company. (Demonstration disc available.)

**Business grows with it**  
**SAVE £30**  
on previous price **NOW ONLY £69.95**  
DEMO ONLY £2.95

**◆ DG PAYROLL ◆**

The definitive payroll system. Menu-driven, easy to use and supported by comprehensive documentation. The program automatically calculates PAYE, NI and SSP, SMP for up to 100 employees and meets all current statutory requirements. Definable deductions, fully integrated SSP/SMP payment/recording, facilities for company pension/private pension schemes, produces all statutory information/reports including P14, P60, P35, P45, provides accurate printed records with payroll analysis, and much, much more.

**An end to payroll panic**  
**£39.95**

**PERSONAL TAX PLANNER**

Are you sure your taxman is doing his job correctly? Fully menu-driven, this program will calculate your income tax liability for a given tax year and provide pertinent facts about your tax position. Information, which can be easily saved and amended, can be used to provide useful 'what if' calculations. Tax guidance notes are provided and an update service for changes in legislation.

**Definitely more fun than filling out your tax return**  
**£24.95**

**◆ SUPERTYPE II ◆**

This program offers EIGHT new, radically different typesets, each has its own distinctive, professional appeal, giving documents an original facelift. Unlike other, more expensive font programs, Supertype II is unique working directly with ALL versions of LocoScript (1 & 2) AND all CP/M software.

**Upgrade your printer**  
**SAVE £10**  
on previous price **NOW ONLY £14.95**

**◆ DATASTORE II ◆**

Looking for fast access to stored data? Want to create customised reports, mailing lists for printing labels, office and personal records with NO technical knowledge? Researched, developed and written exclusively for the Amstrad PCW, Datastore will fully utilise the facilities of your computer.

**An ideal partner for novice or expert**  
**£39.95**

**CLASSIC SPACE INVADERS also available — £13.95**

**SEND FOR FREE BROCHURE PACK**

**ORDER NOW - 24 HR CREDIT CARD HOTLINE**  
**0395 270273**

# DIGITA

## INTERNATIONAL

TOP QUALITY PROGRAMS AT MAGICAL PRICES

All software written in the UK. Prices include VAT & P&P (add £2.00 for export)

PLEASE RUSH ME BY RETURN (enter quantity)

| PCW                      | PRICE  |
|--------------------------|--------|
| BUSINESS CONTROLLER      | £69.95 |
| BUSINESS CONTROLLER DEMO | £2.95  |
| DG PAYROLL               | £39.95 |
| PERSONAL TAX PLANNER     | £24.95 |
| SUPERTYPE II             | £14.95 |
| DATASTORE II             | £39.95 |

Please send me FREE Brochure Pack

Please debit my ACCESS/VISA CARD

No. \_\_\_\_\_  
Expiry Date \_\_\_\_\_  
Signature \_\_\_\_\_  
Post to: DIGITA INTERNATIONAL LTD.  
BLACK HORSE HOUSE, EXMOUTH  
DEVON EX8 1JL

Name: \_\_\_\_\_  
Address: \_\_\_\_\_



# LISTINGS

The PCW plots, draws and goes round in circles; share the fun!

## PLOT, DRAW AND CIRCLE ROUTINE

by Lawrence Simons

**R**egular readers of these pages will remember Lawrence Simons' Plot routine published in issue 23 (August 88). Springing from those lines of **DATA** have come such popular programs as Spirographix and Mandelbrot. Other readers have had hours of enjoyment from a version of Mallard Basic, augmented by Plot, which can create some pretty stunning graphics. Unfortunately for newer readers that issue has now sold out.

However, new converts to Basic on the PCW

should not fear, as the next few pages contain an updated, and far more versatile, version of this old favourite. Instead of just the plot routine, there are now built-in routines for line and circle drawing.

The Plot Routine is the brain of this listing. What it does is toggle on or off the pixels (if you look closely at your screen you can see the

pixels that make up the letters). Draw and Circle enable you to create lines and circles using just two sets of co-ordinates. In order to achieve anything on the screen, you need to supply the routines with variables. All of these variables must be in integer form. A numeric variable is an integer when the % sign is at the end - for example **circup%**. The syntax and variables for each routine are explained below:

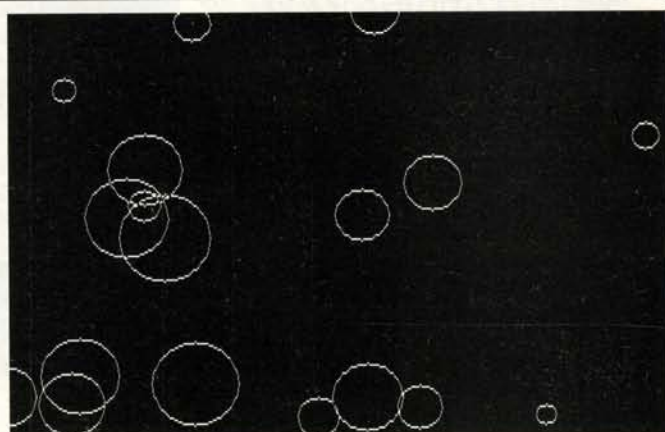
**PLOT(X%,Y%,F%)**

**X%** which must be between 0 and 719.

**Y%** which must be between 0 and 255.

These tell Plot where to begin on the screen. So **X%=0** and **Y%=0** would be at the bottom left of the screen.

The last one is **F%**: you can have one of three settings for this: **1** will Plot a pixel, **0** will Unplot (erase) a pixel. Any other integer will turn a



The circle routine forever blowing bubbles!

|   |      |
|---|------|
| 10 REM MAKE BUBBLES                       | 095C |
| 20 GOSUB 60000                            | 05EE |
| 30 E\$=CHR\$(27):CL\$=E\$+"H"+E\$+"E"     | 0941 |
| 40 PRINT CL\$:E\$+"f"                     | 0762 |
| 50 A%=2                                   | 0223 |
| 60 FOR i=5 TO 30                          | 0688 |
| 70 R%=i:X%=RND*720:Y%=RND*255+i:F%=A%     | 0F78 |
| 80 CALL CIRCLE(X%,Y%,R%,F%)               | 0B2F |
| 90 IF i>100 AND i<110 THEN A%=0 ELSE A%=2 | 103C |
| 100 NEXT i                                | 0464 |
| 110 PRINT E\$+"e"                         | 062D |
| 120 END                                   | 0361 |

Note the GOSUB 60000 in line 20. The rest of the section actually makes the bubbles. Lines 70 and 80 set up the integer variables and then calls the Circle routine.

|  |      |
|--|------|
| 60000 REM PLOT, DRAW & CIRCLE ROUTINES                                 | 1270 |
| 60010 IF HIMEM<>62981! THEN ERROR 7                                    | 0E2F |
| 60020 MEMORY &HF2FF:E=0:a=HIMEM+1:RESTORE 60100                        | 15E4 |
| 60030 PLOT=a:DRAW=a+3:CIRCLE=a+6                                       | 0EB0 |
| 60040 RET=a+9:X0=a+10:Y0=a+12  | 0A89 |
| 60050 FOR i=0 TO 41:c=0:FOR j=1 TO 16                                  | 0E31 |
| 60051 READ x\$:x=VAL("&H"+x\$):c=c+x:POKE a,x:a=a+1:NEXT j             | 1781 |
| 60070 READ x\$   | 0494 |
| 60080 IF c<>VAL("&H"+x\$) THEN E=E+1:PRINT "error in line";10*(i+6007) | 1DF5 |
| 60090 NEXT i:IF E=0 THEN RETURN ELSE PRINT E;"error(s)":ERROR 17       | 1FA5 |

The beginning of the Circle Routine itself. Line 60010 ensures that the routine is loaded directly beneath the operating system. You may like to delete this line in order to load the routine elsewhere.



# LISTINGS PLUS

|  |      |
|--|------|
| 60100 DATA C3,30,F3,C3,B3,F3,C3,81,F4,FF,FF,FF,FF,FF,D9,C1,D1C | 16D2 |
| 60110 DATA 21,00,00,39,31,00,F6,E5,C5,21,09,F3,D9,4E,23,46,5D8 | 1293 |
| 60120 DATA 78,B1,28,09,0B,78,B1,3E,01,28,02,3E,02,3C,08,C9,444 | 12E1 |
| 60130 DATA E5,DD,E1,D5,FD,E1,60,69,CD,0E,F3,CD,41,F3,E1,F9,BC8 | 15E8 |
| 60140 DATA C9,D9,36,01,D9,DD,4E,00,DD,46,01,FD,5E,00,FD,56,7AF | 1515 |
| 60150 DATA 01,ED,43,0A,F3,ED,53,0C,F3,21,CF,02,A7,ED,42,D8,80D | 157B |
| 60160 DATA 7A,A7,37,C0,D9,36,00,D9,93,3D,5F,EB,F3,3E,81,D3,89F | 155D |
| 60170 DATA F1,3C,D3,F2,29,11,00,B6,19,5E,23,56,EB,7D,E6,07,727 | 1387 |
| 60180 DATA 5F,29,7D,E6,F0,B3,6F,59,79,E6,F8,4F,09,7B,E6,07,86D | 14E6 |
| 60190 DATA 3C,47,3E,01,0F,10,FD,08,47,08,10,05,2F,A6,77,18,3AE | 12DB |
| 60200 DATA 08,10,04,B6,77,18,02,AE,77,3E,85,D3,F1,3C,D3,F2,710 | 13B4 |
| 60210 DATA FB,A7,C9,E5,DD,E1,D5,FD,E1,60,69,CD,0E,F3,CD,C6,BEB | 1710 |

The very guts of the routine. The data which must be typed in commas and all. Try setting the cursor keys to numerics by pressing ALT and RELAY.

|  |      |
|--|------|
| 60220 DATA F3,D9,71,E1,F9,C9,DD,6E,00,DD,66,01,ED,4B,0A,F3,9A4 | 1594 |
| 60230 DATA A7,ED,42,EB,FD,6E,00,FD,66,01,ED,4B,0C,F3,A7,ED,95B | 169A |
| 60240 DATA 42,D9,0E,02,D9,7A,B3,B4,B5,C8,0E,01,CB,7A,28,09,6E7 | 1499 |
| 60250 DATA 0E,FF,7A,2F,57,7B,2F,5F,13,06,01,CB,7C,28,09,06,4AE | 14B3 |
| 60260 DATA FF,7C,2F,67,7D,2F,6F,23,ED,43,92,F5,A7,ED,52,38,824 | 1471 |
| 60270 DATA 0C,19,ED,53,96,F5,22,98,F5,0E,00,18,0A,19,22,96,5A0 | 1392 |
| 60280 DATA F5,ED,53,98,F5,06,00,ED,43,94,F5,2A,98,F5,44,4D,8C9 | 1476 |
| 60290 DATA CB,3C,CB,1D,D9,0E,00,D9,C5,ED,4B,96,F5,09,ED,4B,878 | 160B |
| 60300 DATA 98,F5,A7,ED,42,38,06,ED,5B,92,F5,18,05,09,ED,5B,7DE | 1569 |
| 60310 DATA 94,F5,E5,2A,0A,F3,4B,7B,17,9F,47,09,DD,75,00,DD,790 | 14BE |

The same again and more. These are in fact the x\$ which were read in lines 60051 and 60070.

|  |      |
|--|------|
| 60320 DATA 74,01,2A,0C,F3,4A,7A,17,9F,47,09,FD,75,00,FD,74,64B | 13EB |
| 60330 DATA 01,CD,41,F3,D9,7E,B1,4F,D9,E1,C1,0B,78,B1,20,B8,8E0 | 14C4 |
| 60340 DATA C9,E5,DD,E1,D5,FD,E1,60,69,5E,23,56,23,EB,4E,23,93E | 14D4 |
| 60350 DATA 46,ED,43,9E,F5,EB,5E,23,56,23,EB,CD,0E,F3,D9,36,8B6 | 157E |
| 60360 DATA 04,D9,2A,9E,F5,7C,A7,C0,D9,34,D9,B5,C8,CD,72,F5,A14 | 1597 |
| 60370 DATA 22,A0,F5,2A,9E,F5,CD,81,F5,FD,6E,00,FD,66,01,22,8A8 | 154B |
| 60380 DATA 9C,F5,22,0C,F3,DD,6E,00,DD,66,01,22,9A,F5,09,22,71D | 1476 |
| 60390 DATA 0A,F3,D9,06,00,1E,01,D9,CD,FA,F4,D9,1C,7B,D9,FE,8D6 | 1611 |
| 60400 DATA 05,38,F5,2A,9A,F5,DD,75,00,DD,74,01,2A,9C,F5,FD,847 | 1443 |
| 60410 DATA 75,00,FD,74,01,D9,70,E1,F9,C9,3A,9E,F5,47,C5,05,8B1 | 146A |
| 60420 DATA D9,7B,D9,0F,38,05,3A,9E,F5,90,47,68,26,00,E5,CD,75D | 14AE |
| 60430 DATA 72,F5,EB,2A,A0,F5,A7,ED,52,CD,5D,F5,EB,2A,9C,F5,ABC | 16FF |

Even more of the same again. Just keep typing, the results will be well worth the effort.

|  |      |
|--|------|
| 60440 DATA D9,7B,D9,FE,03,30,03,19,18,03,A7,ED,52,FD,75,00,6ED | 1428 |
| 60450 DATA FD,74,01,E1,CD,81,F5,2A,9A,F5,D9,7B,D9,FE,01,28,9A3 | 14B8 |
| 60460 DATA 09,FE,04,28,05,A7,ED,42,18,01,09,DD,75,00,DD,74,5D3 | 1395 |
| 60470 DATA 01,CD,C6,F3,D9,79,B0,47,D9,C1,10,A2,C9,7C,B5,C8,9DE | 1524 |
| 60480 DATA EB,21,00,00,23,E5,CD,72,F5,A7,ED,52,E1,38,F5,C8,904 | 14A5 |
| 60490 DATA 2B,C9,65,2E,00,4C,45,3E,08,29,30,01,09,3D,20,F9,417 | 1385 |
| 60500 DATA C9,54,5D,29,29,29,19,CB,3C,CB,1D,CB,3C,CB,1D,44,630 | 146F |
| 60510 DATA 4D,C9,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,FF,F08    | 1A29 |

Last but not least...even more data.



green pixel black and vice versa (toggle).

**DRAW (X%,Y%,F%)**

Draw will create a straight line from the position of the last pixel plotted or drawn to the new coordinates. So in this case **X%** and **Y%** tell it where to finish the line. Their limits are the same as in Plot.

**F%** still has the same three settings as above. Draw, like the two other routines, will allow you to pass lines through anything else on screen and will also 'undraw' itself. For example, you could create a pointer into some text and then undraw it to give emphasis in a presentation.

**CIRCLE(X%,Y%,R%,F%)**

As you can see this has four variables, the **R%** being the odd one out. This stands for **Radius** and may be set at anything from 1 to 255. It cannot be zero for obvious reasons, you'd end up with an abstract circle and nothing on the screen to show off with!

Taken in combination, these routines will allow you to create some powerful visuals with which to impress and confound all those who doubt the PCW....and there are still a few lost souls!

In order to illustrate the Circle function, we have included lines 10 to 120 which create random 'bubbles' on the screen. When using

any of the routines in your own programs you must first execute a **GOSUB** or **GOTO** to get to line 60000. This will invoke the routines and install them in high memory. In our Bubble example the code is installed by the **CALL 60000**; once all the numbers have been read and poked into memory the program returns from the installation subroutine and the bubbles are generated in lines 30 to 110. Line 120 ends the routine.

To use these new routines in your own programs you should delete lines 10-120 and save the remainder as **DRAW.BAS** or something similar. But don't forget any program you write using these routines must include the **CALL 60000** as the first thing it does.

After all that, have fun and send us some examples!

## How to Type in a Listing.

First you need to get Mallard Basic up and running; to do this insert a copy of your CP/M disc. At the **A>** prompt type **BASIC** and press [ENTER].

**BASIC** is loaded when the **A>** disappears and is replaced by 'ok'. You're now ready to type in the listings. Do this as they appear on the page, line by line. Don't type the four figure hex numbers at the end of every line as these relate to the Checksum program published in the November 1988 issue.

Typing errors are quite common so check each line carefully. If you find a mistake before pressing [RETURN], simply cursor back to it and make the required correction using the [DEL] keys. If you realize that you've made a mistake after pressing [RETURN] you will need to type **EDIT** and the number of the offending line. You can then edit any errors in the same way as above. Once you're sure that all is correct press [RETURN]. The corrected line will be

accepted into the program.

When you've typed in all the lines and made any corrections, type **LIST** to print the entire program on the screen. If you want a copy sent to the printer you will need to type **LLIST**.

After making another line by line check you must save the program. Do this by typing **SAVE** followed by a filename such as **DRAW**. You don't need to bother with the **.BAS** as Basic assumes this. Make sure the filename is no longer than eight letters.

Finally type **RUN** and wait. The chances are that the dreaded Syntax error in line so-and-so or some other message will appear. The line number might not be the exact place in which the error occurred but it will narrow down the search. Edit any errors in the manner we have noted and try again. If all else fails go to the manual.

## SHARECALC

By Graeme D Jarvie

Last week, we brought you a simple program to check APR% and possible debts....this week it's (hopefully) profit time. Graeme Jarvie's Sharecalc helps you to monitor a mini portfolio of shares. This would be useful to track the performance of shares you're interested in as well as those you already own.

Like Loancalc, this new program is clearly laid out and makes use of Mallard's Jetsam file-handling functions. The program gives you a menu of four possible options (sic):

(A)dd asks for the name of the share, the

```
5 REM Shares.Bas by Graeme D Jarvie(1989)
10 bell$=CHR$(7):esc$=CHR$(27):BUFFERS 10:cls$=esc$+"E"+esc$+"H"
20 DEF FN money$(x)="##"+DEC$(x/100,"###,###.##")
30 IF FIND$("shares.dat")<>"" THEN 50
40 CREATE 1,"shares.dat","shares.ind",2,10:CLOSE 1
50 OPEN "K",1,"shares.dat","shares.ind",2
60 FIELD 1,4 AS fiNoBought$,4 AS fiBoughtAt$
70 PRINT cls$;"ShareCalc":PRINT:PRINT "A>dd,D>elete,C>alculate,Q>uit"
80 a$=INPUT$(1):a=INSTR("adcq",a$):IF a=0 THEN 80
90 ON a GOTO 100,150,190,330
```

This section Creates and then Opens the two Jetsam files needed for the portfolio.

```
100 PRINT cls$;"ShareCalc - Enter New Share Details."
110 PRINT: INPUT "Share Name ";name$:IF name$="" THEN 70
120 PRINT: INPUT "Number Bought ";nobt:LSET fiNoBought$=MK$$(nobt)
130 PRINT: INPUT "Bought At ";btat:LSET fiBoughtAt$=MK$$(btat)
140 result=ADDREC (1,2,0,name$):PUT 1:GOTO 70
150 PRINT cls$;"ShareCalc - Delete Share Details."
160 PRINT: INPUT "Share Name ";name$:IF name$="" THEN 70
```

This is where you get to input the portfolio itself. Note the MK\$ in lines 120 and 130. These convert numerics to strings for Jetsam to store.



## DATA LINE COMPUTING SERVICES

For Quality, Reliability And Service  
fast delivery - low prices

\* \* \* \* \*  
\* MAY SPECIALS \*

\* \* \* \* \*  
\* AMX MOUSE+STOP PRESS MINI OFFICE PRO PLUS \*  
\* £67.95 £34.95 \*  
\* \* \* \* \*

### Databases

At Last Plus ..... £28.95  
Cambase 2 ..... £36.95  
DBase II (version 2.41) ..... £69.95  
Masterfile 8000 ..... £34.95  
DAATAfax ..... £32.95  
DAATAfax Gift Pack ..... £39.95

### Spreadsheets

Cracker II Turbo ..... £39.95  
Supercalc 2 ..... £39.95

### Word Processing

Locofile ..... £25.95  
Locofont (10 fonts) ..... £16.95  
Locoscript 2 ..... £21.95  
Locoscript 2 + Locospell ..... £31.95  
Locomail ..... £28.95  
Full Protect ..... £41.95  
Pocket Protect ..... £27.95  
Protect Office ..... £29.95

### Accounts

Cavalier Inbusiness ..... £137.95  
Sage Pop. Accounts Plus ..... £104.95  
Money Manager Plus ..... £34.95  
Newstar Small Bus. Accs ..... £58.95

### Educational

Magic Maths (4-8) ..... £13.95  
Maths Mania (8-12) ..... £13.95  
Better Maths (12-16) ..... £13.95  
Biology 1 (12-16) ..... £18.50  
Chemistry 1 (12-16) ..... £18.50  
Physics 1 (12-16) ..... £18.50  
The French Mistress ..... £15.95  
The German Master ..... £15.95  
Iankey Two Fingers Touch Typing ..... £19.95  
Iankey Crash Course In Typing ..... £19.95  
Paperback Touch 'n' Go ..... £19.95  
Tyresoft Easy Games ..... £11.95

### Leisure

Batman ..... £11.95  
Bridge Player 2000 ..... £11.95  
Clock Chess 89 ..... £15.95  
Colossus Chess 4 ..... £11.95  
Corruption ..... £19.95  
Deluxe Scrabble ..... £14.95  
Fairlight II ..... £15.95  
Fish ..... £19.95  
Graham Gooch Test Cricket ..... £15.95  
Guild Of Thieves ..... £18.95  
Head Over Heels ..... £11.95  
Head Coach ..... £13.95  
Hitch Hikers Guide ..... £22.95  
Ingrids Back ..... £11.95  
Jinxter ..... £18.95  
Lancelot ..... £14.95  
Leather Goddesses Phobos ..... £22.95  
Matchday II ..... £11.95  
Steve Davis Snooker ..... £11.95  
Tetris ..... £14.95  
Time & Magic ..... £11.95  
Tomahawk ..... £15.95  
World Of Soccer ..... £13.95

### DTP/Graphics

Desk Top Publisher ..... £21.95  
Desk Top Pub + AMX Mouse ..... £59.95  
Stop Press ..... £39.95  
Masterpack ..... £59.95

### Miscellaneous

Cavalier - Diner ..... £52.95  
Cavalier - Newsboy ..... £52.95  
Cavalier - Homeview ..... £175.00  
Meridian Stock Market ..... £34.95  
Serial/ Parallel I/F ..... £46.95  
8256/8512 Compat Ribbons 2 x ..... £7.00  
Amsoft 3" Discs ..... Phone

This is just a small sample of our range of software, peripherals & consumables for the PCW.  
Why not write or phone for our FREE catalogue (please state machine).

Cheques/P.O. payable to:-

DATA LINE COMPUTING SERVICES

14 DUKE STREET WISBECH CAMBS PE13 2AS

TEL: 0945 61736

MON-FRI 10.00 - 5.30 SAT 9.30 - 1.00

ALL OUR PRICES INCLUDE VAT

POSTAGE AND PACKING

AMSOFT 3" DISCS - £24.95 FOR 10  
DISC BOXES - TO HOLD 60 X 3" DISCS  
ONLY £9.95

8256/8512 FABRIC RIBBONS - £3.85 EACH  
9512 RIBBONS - £2.95 EACH  
MINI OFFICE PROFESSIONAL (new version)  
- £39.95

PCW Catalogue now available - contact us for details  
All our prices include VAT & 1st class post (UK only)  
Postage overseas - please apply for rates  
The price you see is the price you pay  
Order now from:-

K & M COMPUTERS, 8P

140 SANDY LANE CENTRE

SKELMERSDALE, LANCS, WN8 8LH.

24 hours phone 0695 29046

Jacoby  
Centre

CHELLENHAM

- AMSTRAD BUSINESS COMPUTERS
- FREE ON SITE MAINTENANCE WITH ALL MACHINES
- FREE DELIVERY ANYWHERE MAINLAND UK
- SOFTWARE AND ACCESSORIES

This is a snip from our 8 page price list including VAT.

PCW9512 & Printer ..... £538.20  
PC1640HD20ECD ..... £1071.80  
PC2086HD30 12" Mono ..... £1069.50  
PC2286HD40 14" Col ..... £1598.50  
PC2386HD65 14" HRCD ..... £3185.50

'Granville House' 441 High Street  
Cheltenham, GL50 3HX  
Cheltenham (0242) 511139

VAT REG NO: 466 8230 24

COMPUTER SALES / TRAINING

AMSTRAD DEALER Reg. No 00543GB

AMSTRAD

Authorised  
BUSINESS DEALER



## Supermaths

Specially written for Amstrad PCW Computers. User-friendly, enjoyable package: multiplication (including tables), division, addition and subtraction (4 levels of difficulty) - ages 5 upwards.

PRACTICE and TEST modes. Scores shown, success rewarded. PRACTICE mode corrects mistakes. In TEST mode you answer questions against the clock.

WORKSHEET mode produces worksheets on the printer with a choice of two different styles, with separate answers.

Can provide hours of competitive fun while improving numeracy skills. Suitable for home and classroom alike.

Also available for Amstrad PC Computers and Compatibles.

Price £16.95 inc VAT P&P (cheques payable to Abacus Software)  
send payment with order to:  
11 Woodcote Drive, Orpington, Kent BR6 8DB

## Desktop Publishing Accessory Discs

HD1 CLIPS & FONTS £12.50 (NB\*\*)

12 Versatile fonts plus 60 clip art illustrations

HD2 DESKTOP MAGIC £12.50 (NB\*\*)

100's of clip art graphics including, Dogs, Cats, Cars, Buildings, Advertising Aids and many more, plus the amazing border maker, 90 graphics for trims and borders.

(NB\*\* HD 1&2 are for Stop Press and Newsdesk International only)

HD3 "IMAGE KIT" £12.50

44 Selected larger graphics, from Spitfires to Butterflies, from Cannons to Steam Trains.

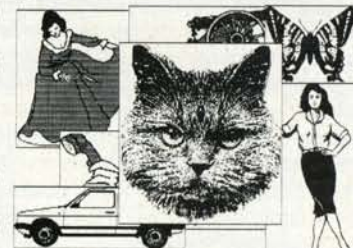
HD4 "POSTER KIT" £12.50

Larger cut and paste lettering in four styles inc. Old English outline.

CLIP PACK. (NB\*\*) A selection of 280

graphics from HD 1 & 2 formatted for The Desktop Publisher

£12.50



LETTER PACK (NB\*\*) 14 Cut and paste headline fonts formatted for the Desktop Publisher only

£9.50

(WRITE OR PHONE FOR OUR FREE INFO SHEETS)

HD DESIGN

3 ROUNDTOWN WAY, GOLDSWORTH PARK,  
WOKING, SURREY, GU21 3QN. TELEPHONE: 04867 81394

## AMSTAT\* & STATMODE

MODULAR STATISTICS AND MATHEMATICS PACKAGES

MARKETED BY

S. C. COLEMAN LIMITED

AMSTAT for PCW & CPC

STATMODE for PC Compatibles

AMSTAT 1/STATMODE 1 - means, st. devs., variance, skew, kurtosis, 1-sample, 2-sample, and paired t-tests, 1-way-AOV with single and mult. conf. intervals, 2-way-AOV, correlations, regression, histograms, scattergrams, transformations, file store and retrieve, output to WP file, manual, Flexible variables and observations to a total of 500 (+) data points (12000 STATMODE).

AMSTAT 2/STATMODE 2 - 27 nonparametric tests providing a "complete Siegel". Binomial, Chi-square(3), Kolmogorov-Smirnov(2), Runs, McNemar, Sign, Wilcoxon, Walsh, Randomisation(2), Fisher, Median (+extension), Mann-Whitney, Wald-Wolfowitz, Moses, Cochran, Friedman, Kruskal-Wallis, Contingency, Spearman, Kendall, Kendall partial, Concordance.

AMSTAT 3/STATMODE 3: FORECASTING

An array of business oriented mathematical and statistical software: Linear and Polynomial regression, Trend and Seasonal Variation, Multiple Regression Analysis, Transformations, Exponential Smoothing, Adaptive Filtering, Graphic display, full printout, manual suited to immediate use and for teaching. (Additional program for PC).

AMSTAT 4/STATMODE 4: RESOURCE MANAGEMENT -

LINEAR PROGRAMMING MODULE

General Purpose Linear programming + Specialised Transportation and assignment variants. Capable of analysing and solving problems of sequencing, scheduling, blending and allocation of scarce resources. 40 Page manual. 18 worked examples.

AMSTAT 6/STATMODE 6: SFANOVA

Up to 8-way analysis of variance for equal cell sizes. Unequal cell sizes on 1-way AOV. Maximum of 2000 data points (300 on unexpanded CP/M 2.2, 4000 on PC). Input from ASCII Files. Output to screen or text file with full AOV table + main and interaction means and Neuman-Keuls on main effects. Manual. (Disc only).

AMSTAT 7/STATMODE 7: RESOURCE MANAGEMENT II - STOCK AND PRODUCTION ANALYSIS

Calculation of economic order quantities for both single and multiple items. Dynamic programming to calculate optimum production schedules for single items and consolidation of several results into a multiple schedule. Also Pareto and Lorenz analysis. Output to screen or printer. Includes operational manual with worked examples.

The programs have applications in research of all kinds, education, sales, production planning, work and method study, financial planning, personnel, social work etc.

"I will certainly be using them myself in the future and no reviewer can offer a warmer recommendation than that." Dr. Peter Morris, Amstrad Professional Computing, May 1987.

| Price List | CPC    | PCW    | PC        |        |
|------------|--------|--------|-----------|--------|
| AMSTAT1    | £25.95 | £27.95 | STATMODE1 | £39.95 |
| AMSTAT2    | £39.95 | £39.95 | STATMODE2 | £39.95 |
| AMSTAT3    | £25.95 | £27.95 | STATMODE3 | £39.95 |
| AMSTAT4    | £25.95 | £27.95 | STATMODE4 | £39.95 |
| AMSTAT6    | £25.95 | £27.95 | STATMODE6 | £39.95 |
| AMSTAT7    | £25.95 | £27.95 | STATMODE7 | £39.95 |

ANY 2 - 15% DISCOUNT

ANY 4 - 20% DISCOUNT

Please enquire for

Educational quantity discounts.

ALL PRICES INCLUDE POST  
AND PACKAGING IN THE  
U.K. BUT EXCLUDE VAT.



\*AMSTAT is a trademark of AMSTRAD PLC and is used under licence

CHEQUES AND P.O.s TO:

S. C. COLEMAN LTD.

33 LEICESTER ROAD, ASHBY-DE-LA-ZOUCH  
LEICESTERSHIRE, LE6 5DA

TEL: 0530 415919

24 Hour Answerphone. Technical enquiries after 6.00pm



```

170 IF SEEKKEY(1,2,0,name$)<>0 THEN PRINT bell$:GOTO 70
180 result=DELKEY (1,2):GOTO 70
190 PRINT cls$;"ShareCalc - Portfolio Calculation.":PRINT
200 totvalue=0:totprofit=0:result=SEEKRANK (1,2,0)
210 LPRINT "Name";TAB(20);"Number";TAB(30);"Bought";TAB(40);
220 LPRINT "Now";TAB(50);"Value";TAB(65);"Profit":LPRINT

```

Jetsam goes looking for the shares you input earlier in order to update or delete them. Output to the printer also occurs here.

```

230 WHILE (result=0) OR (result=101)
240   GET 1:nobt=CVS(fiNoBought$):btat=CVS(fiBoughtAt$)
250   PRINT FETCHKEY$(1);TAB (30);:INPUT "Price Now      ";prnw
260   value=prnw*nobt:profit=(prnw-btat)*nobt
270   totvalue=totvalue+value:totprofit=totprofit+profit
280   LPRINT FETCHKEY$(1);TAB (20);nobt;TAB(30);btat;TAB(40);
290   LPRINT prnw;TAB (50);FN money$(value);TAB(65);FN money$(profit)
300   result=SEEKNEXT (1,2)
310 WEND:LPRINT:LPRINT "Totals";TAB(50);FN money$(totvalue);
320 LPRINT TAB (65);FN money$(totprofit);CHR$(12):GOTO 70
330 PRINT cls$;"Thank you for using ShareCalc":CLOSE 1:STOP

```

The calculation of profit and loss. Jetsam does its stuff in providing the program with variables.

## ShareCalc - Portfolio Calculation.

|                              |           |        |
|------------------------------|-----------|--------|
| British Rice                 | Price Now | ? 222  |
| Dixie Boys Big Band Ltd      | Price Now | ? 12   |
| Drop-It'n'-See Repair Co:    | Price Now | ? 333  |
| Martian Exploration(Ord 50p) | Price Now | ? 2122 |
| Minorgo                      | Price Now | ? 54   |
| Scottish Grouse Inc          | Price Now | ? 44   |
| United Frog Farms            | Price Now | ? 33   |
| United Tribbles              | Price Now | ? 33   |

Sharecalc prepares to give the good news.

number of them you bought and at what price (in pennies only).

**D(etele)** allows you to get shot of any shares which are looking unhealthy.

**(C)alculate** asks for the present price of the shares in your portfolio, the price at which you bought them and gives you a printout of the good, or bad, news.

**(Q)uit** closes the files opened in Line 1040 and returns you to Basic.

As it stands, Sharecalc is a useful program and a good example of an application in Mallard Basic using Jetsam. However, you might like to add a few bits of your own. You could get a print to screen or even create a table showing the various prices over a set period. And remember ... the value of shares can go down as well as up.

## GOSUB 8000+

Once you've got Lawrence Simon's Plot, Draw and Circle routines typed in and running you will probably wish to write some of your own applications for it. The Bubbles routine we have supplied makes use of about .2% of its power. Once you've written and debugged your program why not send us a copy.

In fact, if you've written any program which will run on the PCW, then send it to us.

We need to receive work on disc in ASCII form, with documentation and a stamped addressed jiffy bag. You will also need to write a note confirming that the program(s) is all your own work and that they have not been published elsewhere. Of course, if it gets published we'll send you a cheque.

The address you need to send the work to is: Listings, 8000 Plus, 4 Queen Street, Bath, BA1 1EJ. Allow up to 40 days for return of any work - we assess the listings in a batch once a month.

## Battleships Correction (whoops! mode)

Last month's Battleships program was savaged by Gremlins (who normally stick with RAF). The following corrections apply to lines 620 and 630:

```

620 PRINT FN c$(26+gx,21-
    2*y);CHR$(154)+es$+CHR$(12);FN
    c$(26+gx+4*x,21);"^":GOTO 550
630 a$="" :IF (x>(9-s(p,e)) AND f=1) OR (y>(9-
    s(p,e)) AND f=2) THEN a$="error":RETURN

```

Sorry about that.



# TIP OFFS

Caught on the bend and left looking at everyone else's tail? Tipoffs is the place to train a winner.

Don't let yourself be dogged by problems; be first out of the trap and get clean away with a little good advice from our tipsters. The odds are better than Even that we've got the winner, so keep on the inside track with Tipoffs.

If you've got a tip sell it here, and if it's advice you need, this is the place to come: Tipoffs, 8000 Plus, 4 Queen St, Bath, BA1 1EJ. This month winnings go to Nick Morice-Jones for his LocoMail telephone expenses program and to Ian Calder for his boxing tips.

depending on the time and day – again your phone book will provide the appropriate figures.

If you are the sort of high-powered business person who phones New York at odd hours then it might be necessary to add in a few lines to input the rates for these calls as well.

Each entry is both calculated and added to the running total. Once finished the program will provide the kind of neatly tabulated output required for either your accountant or your expenses claim.

**Nick Morice-Jones**  
Chatham  
Kent

## Getting the pip



Owners of Z88s who regularly transfer files using the C Port utility IMPEXP80 can make

their lives even easier by preparing a start of day disc specifically for the purpose. This is how you go about it.

First of all you need to copy the files you'll need to the M drive of the PCW. This is done using PIP as follows:

**PIP[RETURN]**  
**\*M:=A:PIP.COM[RETURN]**

## Correction facility



You state that you can't print in batches (multiple copies of a document) in LocoScript. This is only

true for LocoScript 1 and LocoScript 2 provides **Number of Copies** option in the print menu, allowing up to 99 copies, so Mr Fowler can easily produce the 20 copies he needs. So we'd agree that he should change his word processor, but to LocoScript 2!  
**Howard Fisher**  
Commercial Director  
Locomotive Software

**8000 PLUS** Barely visible beneath a pile of sackcloth and ashes – sorry.

## Phone accounts



Phone calls can be expensive, so it's worth keeping a track of the costs. This LocoMail

routine works by first asking for the date on which you made the call and then for the number of seconds' duration – so you'll need a stopwatch by the phone. You are then asked for the distance you're phoning; this will be **L** for Local rate calls, **A** for medium distance calls (long distance over cheap lines) or **B** for long distance calls. Your phone book will give details on all this.

The next thing is to determine the rate; this can be **P** for Peak rate, **S** for Standard rate or **C** for Cheap rate

```
(Centre)  (Pitch12D) (UL)EXPENSES  PHONE CALLS (S-UL) (-Pitch)
(Centre)  DISTANCE: L=Local A=Medium Distance B=Long Distance
(Centre)  RATE: P=Peak S=Standard C=Cheap
(Layout)
(Wordul) Date: Seconds: Distance: Rate: Cost: Total (-UL)
(Layout)
(Mail) Chg=0 (-Mail) (Mail)
cost=0 (-Mail)
(Mail) costot=0 (-Mail)
(Mail) Phoneline=0 (-Mail)
Date: DATE (Mail)
#secs: DURATION OF CALL IN SECONDS (-Mail)
#dist: DISTANCE, type (L)ocal, Area (A), Area (B) (-Mail)
Rate: RATE, type (P)eak, (S)andard, (C)heap (-Mail)
#rate="P*" AND dist="L*" :<chg=secs/60>: (-Mail)
#rate="S*" AND dist="L*" :<chg=secs/30>: (-Mail)
#rate="C*" AND dist="L*" :<chg=secs/360>: (-Mail)
#rate="P*" AND dist="A*" :<chg=secs/25.71>: (-Mail)
#rate="S*" AND dist="A*" :<chg=secs/34.31>: (-Mail)
#rate="C*" AND dist="A*" :<chg=secs/100>: (-Mail)
#rate="P*" AND dist="B*" :<chg=secs/22.51>: (-Mail)
#rate="S*" AND dist="B*" :<chg=secs/30>: (-Mail)
#rate="C*" AND dist="B*" :<chg=secs/60>: (-Mail)
cost=[(chg*S.06)/100]2((-Mail) (Mail)
cost=(-Mail) (-Mail) costot=[costot+cost] (-Mail) (Mail) costot (-Mail)
(Mail) rpt=? Repeat? type Y or [ENTER] (-Mail)
(-Mail) (Mail) Phoneline Erpt (-Mail)
```

This is how the program looks on the screen of the PCW. For clarity we've left the codes visible.

V=Create new document E=Edit document P=Print document D=Direct printing F=Fill M=Merge  
 f1=Actions f2=Disc f3=File f4=Group f5=Document f6=Settings f7=Disc change f8=Options

Drive A:

368k used 338k free 44 files

group 0 1998 group 4 0k

SAMPLES 88k group 5 0k

TUTORIAL 28k group 6 0k

group 3 0k group 7 54k

Print document

Name: CONTENTS.DOC

Group: group 0

Drive: A

☒ High quality

☐ Draft quality

Number of copies: 25

☐ Print all of document

☐ Print part of document

Drive M:

24k used 6k free 6 files

group 0 10k group 4 0k

SAMPLES 14k group 5 0k

TUTORIAL 0k group 6 0k

group 3 0k group 7 0k

A: group 0 15 files

0 limbo files

CONTENTS.DOC 2k

CHECK.DOC 6k

PCW3512.HSE 2k

PCW3512.PRI 6k

PRINTER.LST 24k

READ.ME 10k

SETTINGS.STD 2k

8 hidden 146k

A: SAMPLES 88k

0 limbo files

ALLSALE 8k

APPOINT 8k

BIBLIOG 8k

CATALOG 8k

HOUSES.DAT 8k

PERSONEL.CND 8k

PERSONEL.COV 8k

PERSONEL.UAC 8k

RESTANT.DAT 8k

STAFF.DAT 10k

TIMEYABL.DAT 8k

BOOKS.LIT 2k

D630.PRI 4k

DMP3000.PRI 4k

FX80.HIB 4k

FX80.PRI 4k

FX80.NLD.PRI 4k

INSTALL.DRW 6k

LQ1500.PRI 4k

LQ3500.PRI 4k

SIMPLEA.PRI 4k

SIMPLEB.PRI 4k

SIMPLES.PRI 4k

SIMPLEBU.PRI 4k

TPI.PRI 4k

Multiple copies of your document certainly can be printed from LocoScript 2

## EXPENSES - PHONE CALLS

DISTANCE: L=Local A=Medium Distance B=Long Distance  
RATE: P=Peak S=Standard C=Cheap

| Date:     | Seconds: | Distance: | Rate: | Cost: | Total: |
|-----------|----------|-----------|-------|-------|--------|
| 2. 1. 89  | 300      | L         | P     | 0.25  | 0.25   |
| 5. 1. 89  | 480      | B         | P     | 1.08  | 1.33   |
| 7. 1. 89  | 600      | L         | C     | 0.08  | 1.41   |
| 10. 1. 89 | 120      | A         | P     | 0.24  | 1.65   |
| 15. 1. 89 | 240      | A         | S     | 0.35  | 2.00   |

The resulting printouts are ideal for those expenses claims.



## PCW DRIVES

3" Brand New PANASONIC/AMSTRAD internal fitting drives, taking standard CF2 discs, with simple instructions for DIY fitting.

NB. Beware of secondhand, reconditioned drives offered as new.

New FD2 drives are no longer available and replaced by FD4, 1mb (720K formatted) drives for both the PCW 8256 and the PCW 9512.

- ★ FD4 second drive for PCW 8256 and PCW 9512 ..... (£107.87 +) = **£124**
- ★ FD4 for PCW 9512 drive A replacement ..... (£103.48 +) = **£119**
- ★ FD1 for PCW 8256/8512 drive A replacement ..... (£86.09 +) = **£99**

## NON STANDARD PCW DRIVES

5.25" PACE external 40/80 track self powered drive for data transfer between PCs and the PCW 8256 and 9512 with TDOS S/W ..... (£160+) = **£184**

VORTEX SYSTEM 2000 external 40mb Hard Disc Drive with Personality Module, cable, manuals & Software ..... (£499+) = **£573.85**

TIMATIC WEB. New 1.2 series 20mb integrated Hard Disc with CP/M, Locoscript, backup, format & partition software ..... (£499+) = **£573.85**

## MEMORY UPGRADES

Upgrade your PCW 8256 memory to 512K with our best selling kit.

Our simple instructions assume no prior knowledge, experience, or skills. We supply TOP QUALITY, fast (150ns) chips which are jig preformed for ease of insertion. NO BENDING REQUIRED plus a 'practice' chip.

- ★ PCW 8256 256K Memory Upgrade Kit (to 512K) ..... (£34.74+) = **£39.95**  
SAVE £5 on above with 3" or 5.25" drive. SAVE £10 with Hard Disc.

**9**

PCW 9512 PAPER FEED GUIDE. Sturdy Perspex/aluminium, adjustable margins, pitch markings (£13.87 + VAT) **£15.95**

*Bold prices include VAT and UK post, normally by return.  
Send cheques/Money orders; or Plc/LA/Govt orders to:-*

### SILICON CITY

Dept 8, Wheal Rose, Redruth, Cornwall TR16 5DR

Access/Visa orders: Telephone **0209 891141**

(Coolchance Ltd)



## FORMS BOX

**JUST PRINT AND USE - THE STATIONERS ON A DISC**

**8000 Plus Value Verdict 4/5.** New extended version 2 with over eighty different forms including: PERSONAL ORGANISER Time Manager, Calendars to 1993, CV Schedule, lots of different Planners, Addresses, letters Received and Sent, Appointments, Graph Example and more.

**BUSINESS FORMS** Invoice, Petty Cash, Sales Record, Stock, Membership, Delivery, Telephone Message, Agenda and many other forms.

**HOUSEHOLD ORGANISER** including House Log, Insurance, Bills, Repairs, Decorations, Gardening, Freezer, Diet, Appliances, Home Hunting, and Wine Cellar.

**FINANCES ORGANISER** Cheques, Monthly Budgets, Personal Accounts, Credit, Shares and Unit Trusts, Income and Expenditure Records



Compatible with Locos 1 and 2. A4 size for ring binding. PCW 8256, 8512 and 9512.  
Money back guarantee and quick despatch.

£19.95 inclusive. Cheques payable to

**Disc Design (Dept. 8000), 1st Floor, Portico House,  
25 Bailgate, Lincoln, LN1 3AP**

## FORMS BOX

## SIGNWRITER

Quality lettering  
from your PCW

**£29.95**

Many extra fonts (£5.75 each plus disk), e.g.:

♿ I I I DECO Chal Corn Cril



Also:  
PAPERBASE De Luxe for bibliographies  
LABELWRITER for product labels  
OXSTAT for statistics  
COLOURED RIBBONS

**WIGHT SCIENTIFIC**

Dept. 8P

44 Roan Street

London SE10 9JT

Tel. (01) 858 2699

## INVEST WITH PRO-PUNTER



\* NOW, you can turn your PCW into an expert racing adviser.

\* **PRO-PUNTER** is a sophisticated, disc-based expert computer system for home micros which ACCURATELY interprets horse racing form.

\* In extensive trials over both **FLAT AND NATIONAL HUNT** seasons:

57% of horses top-rated by **PRO-PUNTER** won, representing an average post-tax PROFIT per race of 80% of capital invested.  
85% of winners came from within the top three rated, representing an average post-tax PROFIT per race of 18%, all three backed.

\* Researched and developed over three years **PRO-PUNTER** uses information from the racing press and analyses **ALL** major aspects of racing form.

\* Produces a **RACE FORECAST**, generates a **COMPUTER S.P.**, highlights good and poor **VALUE BETS** and **OFFERS INVESTMENT ADVICES**

\* **PRO-PUNTER** adjusts automatically to the race under analysis. You don't need to be an expert yourself

\* **PRO-PUNTER** has created more than £920 investment profit to a £10 level-stake from 100 race forecasts proofed to the racing press.

\* Available now for the **AMSTRAD PC/PPC PC/IBM COMPATIBLES**, **AMSTRAD PCW, CPC6128, ATARI ST, BBC.**

**PRO-PUNTER** is a menu-driven and very easy to use once you have found your way around the racing press. The user is led logically from one input stage to another until data is ready for analysis. Perhaps its most exciting feature is that it actually tells the user whether or not to bet on the top-rated horse. Solid investment advices can be very profitable: at the time of going to press 22 investment advices from forecasts proofed to the racing press had resulted in 17 winners with a return on capital investment of almost 100%

### WHAT OUR CUSTOMERS SAY.....

"Very impressed....." KJC. Avon

"4 investment advices since I began using it including 3 winners."

PBJ Yorks

"Won 15/2, 4/1, 11/4.....an excellent set of results." MO. Essex

"Excellent".....MS. London

".....very pleased.....very profitable"

"continues to give general satisfaction and profit." RS. West Sussex

"After sales service which would be hard to beat." ENR. London

### WHAT THE PRESS SAY.....

".....Technology to beat the bookies." Raceform Handicap Book, May 1987

".....the initial investment in a profitable enterprise....." Acorn User, October 1987

".....has the potential to turn bookie-bashing into an art form." Micro User, 1988

".....confound the sceptics." 8000 + March 1988.

".....technically a first class package." Computing with Amstrad PCW, April 1988

\* **PRICE £57.50 including VAT, P&P (please specify machine) Orders and enquiries to:  
DGA (8000+) SOFTWARE, PO BOX 36, ASHTON-UNDER-LYNE LANCS.OL7 9AJ  
TEL: 061-330-0184**





# Clarity Guides

The clear explanations and step by step procedures in **CLARITY GUIDES** save much time and puzzlement. They are comprehensive yet simple to follow with many tips and suggestions (they even have notes on touchtyping) which will enable you to get the best out of Locoscript.

Over 20,000 delighted users.

The **Locoscript 1** Guide covers the Locoscript that comes with the PCW 8256 and 8512 **£6.95**

The **Locoscript 2** Guides covers the new faster version, and includes designing your own characters and Locospell as well as notes on using other printers, label and manuscript layouts and many other topics. Almost all the procedures apply also to the PCW 9512 and owners of this model will find the Locoscript 2 Guide valuable. Good rating in 8000 Plus. **£6.95**

We can also supply the following for the PCW 8256/8512: Locospell, the spelling checker for Locoscript 2 which includes a word count **£19.95**

Locoscript 2 package consisting of Locoscript 2 + Locospell + Clarity Guide for **£39.50**

All prices include First Class P&P.

Please send cheque or PO with order. Prompt despatch. Refund if not delighted, of course.

**CLARITY GUIDES (C),**  
**BROADWOOD, LIFTON,**  
**DEVON. PL16 0ER**

## STARTRACK

A Journey to the stars for only **£14.95**

Startrack is a graphical astronomy program for all PCWs

Special features include:

- Locate individual constellations.
- Cycle through time.
- Identify the brightest stars
- Draw the Horizon and Ecliptic.
- Show only the brightest stars or all stars to Magnitude 4.5.
- Position yourself anywhere on earth at any time.
- View all 88 constellations and lots more.

The well written manual gives detailed instructions for Testing Yourself, Showing the Milky Way, Looking at the Zodiac, Finding Polaris etc.

"I really enjoyed Startrack" - Practical Wireless

"The manual is excellently written" - 8000 Plus

Write for details or send cheque / postal order to:  
**Discovery Software, 291 Cricklewood Lane,**  
**London NW2 2JL**

## WiseOne

## EXPERT SYSTEM

### ARTIFICIAL INTELLIGENCE FOR THE AMSTRAD PCW

WiseOne uses Artificial Intelligence techniques to create a friendly interactive Expert System Consultant on any subject. Your WiseOne system will input knowledge, then give expert advice using questions, answers, statements and explanations in a conversational manner. For diagnosing situations, decision making and guidance. There are WiseOne users in:

TRAINING, PERSONNEL, LOCAL AUTHORITIES, UNIVERSITIES, LAW, INDUSTRY, SOCIAL SERVICES, COMMERCE, MEDICINE, LIBRARIES, SCHOOLS, GOVERNMENT

WiseOne includes a tutorial package with many examples. If you can use a word processor you can use WiseOne to learn about Expert Systems. Note the reviews:

... a powerful expert system shell ... genuinely useful ...  
... could do valuable work for any user ... may be used by non-experts  
... manual clearly written and well laid out, assuming no prior knowledge ... an excellent primer ...  
... powerful and versatile features of comparable shells for the PC costing many times more ...  
(8000 Plus)  
(Your Amstrad PCW)  
(Computing with the Amstrad PCW)

Locoscript/RFED knowledge files \*Help/Explanation/Don't know/Why  
True/false, numeric & option knowledge \*Rule priorities \*Text files  
Volunteering, Changed answers, Interruption \*Printer logging \*Trace  
Variable matching \*Reasoning stages \*Multiple goals \*Arithmetic

**£34.95**  
inc P&P

**SWALLOWSOFT PUBLICATIONS (Ref. M)**

Reply to: P.O. BOX 107, Alton, Hants, GU34 5LJ

Shipping.  
Medstead  
Alton  
Hants

## Amstrad Training – £29.95!



With so many organisations trying to sell you training courses, you need to be selective. And if price is important too, the choice is simple – you need Reel-Time.

No other training course can offer: personal tuition; disk-based tutorials; a full set of course notes on disk; and a wealth of practical extras, all for just £29.95+VAT.

Best of all, your Reel-Time course is delivered to you pre-recorded on audio-cassette and disk. The whole course is yours to run on your own computer, at your own pace, and repeat whenever you like.

- PC range:**
- Amstrad PC (1512 & 1640); • IBM/Compats (PC/XT/AT);
  - SuperCalc (for 3 & 4); • dBase II;
  - WordStar (3.3) • Desktop Publishing;
- PCW range:**
- Amstrad PCW 9512 (& Locoscript 2); • Locoscript (PCW 8256);
  - The PCW Computer (for 8256/8512);
  - SuperCalc 2; • dBase II; • WordStar Professional (3.3); NewWord 2.

**Call today – Learn tomorrow!**

Head-Line Communication Limited  
P O BOX 22, HEREFORD, HR4 8UW  
(Orders/enqs) Tel: (0602) 603623.

Ask for a full list of our  
courses for IBM/Amstrad  
computers and software.

**DEALER ENQUIRIES WELCOME**

437 Westdale Lane, Mapperley, Nottingham NG3 6DH

## • A SMALL SELECTION FROM • OUR WAREHOUSE

| HARDWARE & PERIPHERALS (OFFERS WHILE STOCKS LAST)   | RRP     | WAVE        |
|---|---------|-------------|
| Amstrad PCW8256 Computer/Word Proc                  | £401.35 | £352.59 ANC |
| Amstrad PCW8512 Computer/Word Proc                  | £516.35 | £449.19 ANC |
| Amstrad PCW9512 Computer/Word Proc                  | £573.85 | £451.81 ANC |
| FD-4 2nd 3" Disc Drive - PCW8256/9512 (State Model) | £171.35 | £119.35 C   |
| Amstrad CPS8256 Serial/Parallel Interface - PCW     | £68.94  | £47.36 D    |
| Star LC10 Parallel F&T NLQ Printer                  | £297.85 | £184.35 A   |
| Ribbon Fabric - PCW8256/8512/LQ3500                 | Pkt 2   | £5.40 F     |
| Ribbon Multistrike - PCW9512                        | Pkt 2   | £5.00 F     |
| Ribbon - PCW9512 Blue or Brown                      | Pkt 1   | £4.82 F     |
| Ribbon Fabric - PCW9512                             | Pkt 2   | £5.40 F     |
| Fabric Ribbon Re-inking Fluid (Aerosol)             | £8.95   | £6.71 E     |
| Printwheels - PCW9512 (119 Foreign Styles)          | £10.45  | £9.41 E     |

### \*\*\* AMSTRAD SERVICE EXCHANGE SPARES AVAILABLE - PHONE FOR PRICES \*\*\*

|   |          |        |          |
|---|----------|--------|----------|
| Computer Labels 89mm x 36mm 1 Across                        | Box 1000 | £9.20  | £6.44 D  |
| Statements or Payslips for Sage                             | Box 1000 | £40.48 | £28.24 C |
| AMX Mouse with Desk Top Software, Graphic DFS FRT End - PCW |          | £79.99 | £62.40 C |
| AMX Mouse with Stop Press - PCW8256/8512                    |          | £89.99 | £70.19 C |
| Kempston AM35 Joystick Interface - PCW                      |          | £14.95 | £11.21 D |
| Kempston AM45 Mouse & Jeeves Software - PCW8256/8512/9512   |          | £79.95 | £44.77 D |
| Kempston DF40 Mouse & Daatafax - PCW                        |          | £79.95 | £55.96 D |
| Trojan Light Pen & Graphics Software - PCW                  |          | £29.95 | £20.96 E |

### BLANK DISCS & SOFTWARE

|   |        |        |          |
|---|--------|--------|----------|
| Locofile Database - PCW (State Model)     |        | £29.95 | £20.97 D |
| Supercalc 2 - CPC/PCW                     |        | £49.99 | £34.97 C |
| Cornix Simple Accounts II Prom. Edt. PCW  |        | £99.95 | £74.96 D |
| Cornix Card-Index - PCW (State Model)     |        | £34.95 | £26.21 E |
| Amsoft/Maxell 3" Discs DS/ALL 3" Drives   | Box 10 |        | £20.53 E |
| Euro 3" Discs DS/ALL 3" Drives Hard Cased | Pkt 10 |        | £17.94 D |
| JVC 3.5" DS/DD 135TPI Bulk Discs          | Pkt 25 |        | £20.63 D |
| Verbatim 5.25" DS/DD 40/80T Bulk Discs    | Pkt 25 |        | £6.82 D  |
| Amstrad Amcase Library Case Holds 10 3"   |        | £7.95  | £3.98 E  |
| 10 3" Euro Discs in New Amcase Lib. Case  |        | £37.85 | £19.87 D |

Large range of Books and Software Business/Games/Utilities etc. Telephones, Answering Machines, Modems, Faxes, Photocopiers. All at Good Discounts. Far too many items to list here.

SEND 3 x 19p STAMPS FOR LISTS. STATING FOR WHICH PRODUCTS

ENG. MAINLAND post & ins.: (A) £5.75, (B) £4.60, (C) £3.45, (D) £2.30, (E) £1.15, (F) 58p  
(ANC) 3 Day £10.35, Next Day £13.80, COD + £2.30, Max. UK Postal Charge. £6.90 per 20kg/£500  
ALL PRICES INCLUDE V.A.T. All sales subject to our Trade Terms of Trading

W.A.V.E. (Trade Dept. 8000 689)


**WALNEY AUDIO VISUAL & ELECTRICAL DISTRIBUTION**

1 Buccleuch Street, Barrow-In-Furness, Cumbria LA14 1SR

Tel: 0229-870000 (6 lines) Hours: Mon-Fri 10.00-5.00



When the PCW starts up again, everything you need for file transfer will be in M, allowing you to use the disc drives for data discs. Files can now be transferred, examined and converted before being copied across to the data disc.

 Being able to draw boxes in LocoScript text files is extremely useful since it allows the printing out of tables within documents. There are, of course, no really suitable characters for box drawing in the LocoScript character set so it becomes necessary to design

This is the design for the vertical line at the end of lines

This is the design for the vertical line in the middle of lines

The final result

**Ian M Calder**  
17th/21st Lancers  
Loddenheide  
Germany

Resorting to the manual, I find that Section 8.3 goes on to say "... We can't tell you here what steps you will need to take to convert your datafiles to ASCII – you will need to study the user guide for your database program to discover that..." Talk about a snake eating its own tail!



## TIPOFFS

Obviously I am missing something. I must be, since the alternative is that LocoMotive is making an important omission in what is otherwise an excellent package; I find that hard to believe.

**Colin Reynolds**  
Midhurst, West Sussex

**8000 PLUS** LocoFile datafiles aren't in a form suitable for merging. You need to convert them to Ascii files as you surmised. The easiest way to do this is with LocoMail. Simply set up a loop that writes each card to a page, edit in a record pattern at the beginning and save the resulting file to disc. This can now be merged with another LocoFile datafile in exactly the same way as it would be merged into a new LocoFile datafile. There is no way to merge two LocoFile databases directly.

### The word

**Q** My recollection is that in one back issue of 8000 Plus you mentioned that you set up much of your copy on an Amstrad PCW, which you then transferred to an Apple.

My wonderment is whether or not it is possible to transfer Mac software onto the Amstrad, whether that may be 3" on the PCW, or 3 1/4" on the PPC, or 5 1/4" on the PC.

Unfortunately LocoScript do not have what I want, and I have not been able to come up with anything other than the Mac. I would be grateful for your help or advice. The subject of the software is Hebrew (Biblical) language, including Old Testament text.

**Martin Reid**  
Falkirk

**8000 PLUS** There is no way that Mac software could ever be made to run on the PCW. The Macs use the more powerful Motorola 68000 and 68020 processors and Mac programs tend to need a great deal of memory.

There may be a way around your problem though. One of the advantages of the 24 pin printers is that most of them allow you to download complete character sets. There is nothing to stop you designing and downloading a complete Hebrew character set for one of these. You'd need to label your keytops but there is no reason in principle why it shouldn't work.

### Dbasic problem

**Q** I am using the Mini Office database to store some records. I would like to make the system as simple as possible to operate, and to this end wanted to put CP/M and OFFICE.COM on an A drive disc, together with the database program from Mini Office. I can do the first part of this, but when I try

```

>dir a:
A: OFFICE.COM
SYSTEM FILE(S) EXIST
>set a:*. * [dir]

A:WORD.COM set to directory (DIR), Read Only (RO)
A:WORDA.COM set to directory (DIR), Read Only (RO)
A:CHRMATS.COD set to directory (DIR), Read Only (RO)
A:DBASE.COM set to directory (DIR), Read Only (RO)
A:OFFICE.COM set to directory (DIR), Read Only (RO)

>dir a:
A:WORD.COM : WORDA.COM : CHRMATS.COD : DBASE.COM : OFFICE.COM

```

Using SET.COM to get a look at the files on the Mini Office discs.

to copy the database program the computer fails to recognise the existence of the database file. Is there any way around this problem? I would really like to be able to load up the single disc, type DBASE and be into the database option.

**Mrs C M Corns**  
Loughton  
Essex

**8000 PLUS** What the authors of Mini Office have done is to set all the files that do anything useful to **System** status, which means that they don't show up on directory listings and such like. The easy way to solve the problem is to set them all to **Dir** status using the **SET** utility.

Working on the copies of your Mini Office master discs put SET.COM on drive M and the disc in drive A. Now type:

**SET a:.\* [DIR]**

All the files on the disc will now be listed out as having been set to DIR status. You may be surprised at how many there are. You need to copy the DBASE.COM program and the CHRMATS.COD program to your new disc along with the EMS operating file. If you now type DBASE, the database will load and work perfectly well; however, when you try to quit it will demand the disc with OFFICE.COM on it.

The solution is to copy something useful onto the disc and rename it OFFICE.COM. A good choice is DIR.COM, which will at least give you something interesting to look at before immediately going away again.

### Going dotty

**Q** I have an 8512 Amstrad PCW. From this letter you will observe that there are small dots under each word. This problem has occurred before, but corrected itself after a few days. Would it be possible for you to advise me of what is causing the problem?

**E R Best**  
London

**8000 PLUS** It looks like a cable problem to me. Since it's still under guarantee, the quick solution is to take it back to wherever you got it and get them to do a straight swap - your printer for one they have in stock. They can then return the whole machine to their supplier and you don't have to wait months for a repair. Check

that I'm right using someone else's printer before doing this if possible.

### Copy cat

**Q** Anyone who is thinking of trying to copy files across from a PCW onto a PC using the commands as shown in the March 1987 edition of 8000 Plus is in for a very trying time indeed. Put as simply as possible it won't work. The reason is that the instructions given are wrong! I had spent hours (well 1/2 hour actually), typing in the command and all I got for my efforts was the CP/M messages ILLEGAL COMMAND TAIL, INVALID SEPARATOR etc. So I contacted the good people at 8000 Plus, spoke to a nice chap and obtained the correct instructions. When copying from PCW to PC, the commands to use are as follows:

**PIP AUX:=FILENAME [E]** (The [E] will echo the file on screen).

**PIP AUX:=EOF:** This transmits an End Of File marker, (which CP/M doesn't do) so that the PC knows that there is no more information winging its way down the wire.

**K W Gotheridge**  
Derby

### Colourful life

**Q** I have recently purchased a Star LC10 colour printer. Is there any way I can place the codes for colour change in listings like Spirograph, and the Mandelbrot - in fact any other graphics listings? Also, is there any way that I can change the colour on the printer whilst printing clip art and the such like?

I have bought Mallard Basic but would like your advice on a further book on programming language.

I tend to use various DTP packages such as The Desktop Publisher itself, News Desk International, and Stop Press which I find is the best of the three. However I am having difficulty getting the border loaded so that I can do some posters.

**Thomas McMillan**  
Blair Atholl  
Perthshire

**8000 PLUS** I don't have the manual for the

LC-10 colour printer here but changing the print colour is simple enough in principle. Among the printer control codes listed you will find the ones to shift the ribbon. All you need do is send these to the printer with an LPRINT command like so:

10 LPRINT CHR\$(27)+"X" where X is the relevant code. Change it back again in the same way

### Printer problems



I have used my PCW 8512 daily for two and a half years, and I was getting fed up with the quality and speed of the printer. I saw

Locomotive's offer and sent off for the NEC P6, the interface and the 24 pin printer driver disc. Buying them all from Locomotive, I thought I would be safe from interface problems. Little did I know.

The £681.30 package refused to work. NO PRINTER said my screen. I sent my start-of-day disc to Locomotive and they returned it as 'correct - works for us'. I sent the interface to Locomotive and they returned it as 'correct - works for us'. They said it was my monitor which was faulty. My friendly Amstrad dealer said 'It's over two years old'. A maintenance company offered to solve my problem; £45 for the visit, and the cost of a circuit board which they thought would be needed would be £75. To all these people I raised the possibility of muck on the terminals but none of them thought that that was likely.

Then I spoke to 8000 Plus. You suggested I clean the terminals with an old fashioned hard ink rubber. I did. It worked. The interface worked. The printer worked.

So to other readers like me, with old machines and ideas to print fast the advice is; buy your interface and a rubber first and establish that the existing hardware is fit for the purpose before you commit yourself to a printer. And thank you, 8000 Plus.

**Mavis Doyle OBE**  
Gateshead  
Tyne & Wear

**8000 PLUS** The board edge connectors on the PCW are tin-plated rather than gold-plated (it costs less) and they do form an insulating layer of tin oxide after a while. The hard rubber is enough to remove it and re-establish the connection.

### Style files



Using LocoFile I can now carry out a straightforward recall from a card under specific heads: author, theme, sub-theme, reference, and so on. But I have yet to be able to recall using sub-keys and alternative sub and main items.



## STOP PRESS

**Only £74.99 (RRP £89.99)**

**The best DTP package for the PCW we could find!**

Desktop publishing — doing page makeup on your computer instead of the old cut-and-past method — is the boom area of home computing. All the national dailies are switching over to DTP methods — and so are thousands of PCW owners.

### Want to try you hand?.

Stop Press's incredibly versatile and powerful software plus mouse will turn your PCW into your very own DTP machine.

The Swiss-made mouse is probably the best currently available for accuracy, speed and reliability and offers high resolution movement all over the screen. The software makes the best possible use of this sensitivity, featuring as it does a wide range of DTP facilities which would probably cost three times as much on higher-priced computers.

### Just a few of the features are:-

- 14 different fonts supplied
- Type sizes from 9 to 96 point
- Clip art ready made to insert into files
- Text entered directly or imported from word processor
- On-screen text formatting, including autoflow around a picture
- Draw, spray or paint - your own designs or those supplied
- Up to nine columns per page
- Bold, italics, underline, reversed boxes
- Centering, ragged right and literal justification
- Prints up to 108 pages in one go
- Shape drawing includes triangles, squares, cubes, circles and ellipses
- Compatible with digitised pictures from Masterscan, Electric Studio Light Pen and the Rombo digitiser.
- 9512 compatible using a Epson compatible dot matrix printer

Altogether, this is a superb way of getting to grips with DTP. We don't expect to ever offer any other DTP package through these pages again, this is the one we will be sticking with because this is still the best!. So here's your chance to get going.

**£15 off**

the manufacturers recommended retail price by placing an order **NOW** with our mail order department on

**0458 74011**

or see the order form on page 125

Newsletters, fanzines, posters, letter-heads, leaflets, charts, graphic business reports, flyers.. all are now within reach, allowing your imagination as much freedom as possible.

# 8000 PLUS





# TIPOFFS

I have written to LocoScript about this but sad to say I am still lost. I fear that I am missing the distinction between 'index name' and the word used for the 'main key'. Perhaps other readers are having similar difficulties or am I an isolated numbskull?

**John Linsie**  
Coventry  
Warks

**8000 PLUS** Indices are easy enough really. Let's say you've set up a mailing list of friends and included their children as separate items. If the Smith family have five children and each of them is made a sub-key then when you page through the records you will be shown the record for Smith five times, once for each of the children. If a family has two children you get shown it twice. If there are no children you still get to see it once anyway.

Alternative main keys are different. Imagine you are cataloguing your Country and Western albums. You set up twenty items labelled Song1, Song2, Song3, etc. Each album has a record card and you put all the songs on each album onto the list, one per item; you don't worry about the order at all or about empty items; in fact they don't even have to follow one on another - you could leave items Song4 and Song5 empty on a card if you hated them.

When you've finished you make all the items from Song1 through to Song20 Alternative Main Keys. Let's say that Rawhide has appeared on six of your albums but that it's a different track on each one. On the first record it might be Song3, on the next Song14 but since they are Alternative Main Keys both will be found when you look for Rawhide and page through the records containing it. Clever, huh?

## Ascii questions



Can you tell me how to make decent ASCII files (ie, simple text files without those wretched hard returns) in Protex.

```

their erstwhile employers. (I'm going to get to the point eventually).
Another piece of accepted lore, at least among the young, is
that anyone over forty is incapable of either absorbing change or
coping with computer technology. Why is it then, I ask myself, (and
anyone else who cares to listen) that some of the cleverest, most
detailed and comprehensible tipoffs come from retired readers? Why are
the best books on computers written by men and women often well past
their 'prime'?
The very famous Ian Sinclair is no spring chicken. (I asked and
he's 57, which means he published an average of just under two
PROTEXT v2.21 (c) Arnor 1986 Type HELP for Command info Printer: PCW9512
a>REPLACE
FIND string: !.
REPLACE with: *
Options (A,B,C,G,W,n)? ag
Replaced 6
a>REPLACE
FIND string: !.
REPLACE with: *
Options (A,B,C,G,W,n)? ag
Replaced 46
a>REPLACE
FIND string: *
REPLACE with: !.!9
Options (A,B,C,G,W,n)? ag
Replaced 6
a>s
SAVE filename: m:filename.asc
a>

```

In the first exchange, we're looking for a tab and 8 spaces; the tab is !. and the spaces are (8 spaces) plus a return.

```

PROTEXT Document m:filename.asc 3K Justify Off Word-Wrap ALT-H for Help
Page 1 Line 1 Col 1 No markers set Insert
-----R-----
measure of wisdom. But why should I be worrying my little balding head with these apparent
Well, what's prompted it is the number of letters I keep getting from those lucky
Another piece of accepted lore, at least among the young, is that anyone over fort
The very famous Ian Sinclair is no spring chicken. (I asked and he's 57, which mean
The fact is that the majority of young computer magazine readers are only expert i
I read a joke article recently that involved a man doing his accounts on an Amstra
So, are all the hundreds of thousands of people who won't see their twenties again
PROTEXT v2.21 (c) Arnor 1986 Type HELP for Command info Printer: PCW9512
a>

```

If you load the final version of the file you will see that each paragraph is now laid out as a single line.

On the issue of LocoScript versus Protex: why does LocoScript make such extensive use of the disc drive when moving around large files? It appears to be writing and reading sections to and from disc, yet if you 'Abandon Edit' none of this will be left. It seems to make more sense to do as Protex does and simply hold the file in memory till you've finished playing with it, then save it.

**Paul Fox**  
Leeds

**8000 PLUS** The traditional method of making an ASCII file is to set the ruler line to a length greater than the number of characters in your longest paragraph, 2000 ought to do it, reformat and save the file, voila.

More elegant is to use the find and replace facility. Print to a file as normal (on drive M for speed). Now load the file you've just printed. Use EXCHANGE to alter the CARRIAGE RETURN- and the spaces (which have replaced the TAB in the file once it was printed to the disc file) at the end of the paragraph to something innocuous like an asterisk.

Next change all the carriage returns printed at the end of every line in the file to spaces. Finally use EXCHANGE again to turn the asterisk back into a CARRIAGE RETURN-TAB combination. Now save the file again and you have the original file with

no carriage returns except at the end of paragraphs. Make sure that you don't reformat the file at any stage.

## A good type



I have an undoubtedly mind-wrenching task for you: I am the proud owner of an unexpanded PCW8256 and also own a Brother EP-44 'Electronic Typewriter/Printer' which is quite compact and ideal for taking notes in lectures. I would like to be able to type a document into the memory of my EP-44 in raw format and to later export it to the PCW via CP/M and PIP (as demonstrated in your articles on the Z88) where I could then format and spellcheck it.

There is an RS232 interface on the Brother, and a way of controlling baud rates but that's as far as I get since the Brother manual is really quite unintelligible and seemingly the relevant section is non-existent in the Amstrad's. Is it possible to do this?

**Adam Holdsworth**  
Middleton-on-Sea  
West Sussex

**8000 PLUS** Yes, you need an RS232 interface for your 8256. Next consult the

Brother manual for the printout details to the RS232 (those for the Amstrad end will come with the interface). Unless you're keen get a computer retailer to make a cable up for you.

Use SETSIO to set up the serial port parameters on the PCW. The easy way is to set it to the Brother default settings, which should be in the manual. Alternatively, set the Brother to the PCW defaults (which will be displayed if you type SETSIO without giving it any parameters). Serial links are notoriously awkward to get working but once you suss it, it should work every time.

## Joined up writing



Buying cables - or getting them made up - can be time consuming and expensive. Cheaper, and more interesting, is to make them up yourself. The serial cable for the Z88 is a good case. This can be made up very easily by anyone capable of turning on a soldering iron.

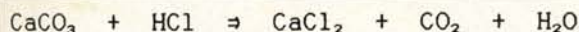
All you need is a 9 pin male D type connector (with the pins sticking out), a 25 pin female D type connector (full of holes) and a length of cable with seven or more cores.

It's worth making up your own cable since that is the only expense

| PCW       | Z88 |
|-----------|-----|
| 3 .....   | 2   |
| 2 .....   | 3   |
| 5 .....   | 4   |
| 4 .....   | 5   |
| 7 .....   | 7   |
| 20 .....  | 8   |
| 6/8 ..... | 9   |

The details of the connections needed for the cable to connect the PCW to the Z88. Note that 6 and 8 are connected





(This equation does balance, I am taking GCSE chemistry this summer!).

It is also possible to print ions such as:  $\text{SO}_4^{2-}$

You, too, can produce convincing looking chemical equations using LocoScript

involved in file transfers between the Z88 and the PCW. All the software required is supplied with both machines.

Out of interest, the same cable works with IBM PCs and their clones as well. Now you can use your Z88 as a file transfer device in its own right without getting involved in any other software or cable problems.

Donald Sawyer  
London

## Chemically correct



LocoScript 2 is more than capable of producing good-looking chemical equations. All that's needed is to make use of the subscript and superscript commands and reduce the pitch. To make the whole process easier it's worth putting the necessary commands into phrases. The first two you need are:  
[+]<sub>SuBscript</sub>[+]<sub>Pitch</sub>17 and  
[-]<sub>SuBscript</sub>[-]<sub>Pitch</sub>17.  
These can be assigned to a phrase with the sequence  
[COPY][EOL][COPY] and the letter of your choice. When actually using these to write equations it's best to keep the Code displays turned off.

The only other thing you need

to know is how to get the 'converted to' arrow. This is obtained via Symbol Supershift [Alt]7 and [SHIFT]Y. This, too, could be stored in a phrase to save time (you could even make yourself up a Phrases file just for Chemistry homework).

You can take this further and print ions using a combination of subscript, superscript and line space = 0.

A d Greenland  
Rickmansworth  
Herts

## Formwork



If you're a Protext user in the habit of keeping different types of files in different groups – or

```
PROTEXT Document protext.cat
Page 1 Line 1 Col 1
>wt "insert disc"
>sv gr=1
>rp
>sv gr=gr+1
>sv gr=gr[W1]
>ex group &gr&
>ex cat
>sv calc=gr+1/4
>if calc[A-1]="00"
>wt "Press any key to continue"
>ei
>un gr=15
```

This is the program that actually allows Protext to print out all the files in all the groups on your disc.

perhaps simply want to check an old LocoScript disc – this little program will CAT all the groups of a disc automatically.

To use it simply type it in and save it under some suitable name, DISCAT for example. When you want to use it just print the file from the command line. You will be asked to insert a disc but if the right one is there just press [RETURN]. All the different groups will appear on the screen with a pause after every fourth one in case you've seen enough; if you have, simply press [STOP].

Charles Maude  
Sheffield

## Stringy stuff



Can you advise me where I might find a full list of the CHR\$( commands such as:

CHR\$(27)+"E"+CHR\$(27)+"H"? I have been unable to find a list anywhere.

William Inglis  
Edinburgh

**8000 PLUS** I think you may be a little confused as to how these things work, so I'll go through it in some detail. To make things happen on the screen characters have to be sent to it. Characters can have one byte values (between zero

and 255). All the characters between 32 decimal and 255 decimal will normally produce a visible character on the PCW screen (32 is actually the space so it isn't very visible) while those below 32 are referred to as control characters and have a different use.

The characters 9 (tab), 13 (carriage return), and 10 (line feed) are used all the time. The [TAB] key puts a 9 into a document while the [RETURN] key puts both 13 and 10 into one when pressed.

One very special character has the value 27, and is known as the Escape character. When one of these is sent to the screen it 'knows' that the next characters received must be treated as instructions to do something rather than as characters to be displayed. The fact that there are several ways to send characters to the screen can cause some confusion.

In Basic a single byte can be sent using the CHR\$( ) command. You could write:  
10 PRINT "A":REM string variable  
20 PRINT CHR\$(65):REM decimal value of A  
30 PRINT CHR\$(&H41):REM hex value of A  
40 PRINT CHR\$(&101):REM octal value of A  
all of which would happily print a capital A to the screen. The CHR\$( ) command can also be used to print control characters to the screen. A complete list of the control characters can be found in the CP/M manual that comes with the PCW in the section headed Terminal Characteristics.

You will find the strings that have to be sent listed as: ESC n where ESC is decimal 27 and n is some other number or letter. The reason why it says ESC is that every control character between zero and 31 has a name, and 27 decimal is ESC (you will find others like SO and SI in the printer control section – these are 14 and 15 decimal).

As you can now see, sending CHR\$(27)+"E"+CHR\$(27)+"H" is in fact just a convenient way of sending the bytes 27,69,27,72 to the screen.

## LocoFile?



It's handy to keep letters sent to the same person or company all together.

Of course there are a few problems. The first is that there can be less directory entries available on a disc than you have short letters (256 on a B disc but only 64 on an A disc). The second problem is that the disc management screen can quickly get very cluttered making it difficult to see where a particular letter is.

One way to make things much simpler is to put all the letters to a particular person or company into a single file. Now, whenever you want to see your correspondence relating to that person or company you will find it all in the same place.

Each letter should end with a forced page break; this allows you to use the Print Page option to print just the letter you're interested in.

Ian Lee  
Kenton  
Middx

| PROTEXT<br>Page 1         | Document<br>Line 1 | protext.cat<br>Col 1 | 1K | Justify Off<br>No markers set | Word-Wrap | ALT-H for<br>Ins |
|---------------------------|--------------------|----------------------|----|-------------------------------|-----------|------------------|
| Drive A: group 1 group 1  |                    |                      |    |                               |           |                  |
| group 1.GRP               | 0K                 | LETTER .2            | 2K | MISTAKE .EG                   | 2K        | SALES .DAT 11K   |
| ADDRESS .LST              | 2K                 | LETTER1 .A88         | 3K | PCMINFO .                     | 7K        | SALES2 .DAT 11K  |
| ADDRESS2 .LST             | 2K                 | LSINFO .             | 4K | PCMINFO1 .                    | 11K       | SESSION .24 2K   |
| DISCINFO .                | 7K                 | MAIL .TXT            | 3K | PCMINFO2 .                    | 11K       | SPELL .TXT 3K    |
| INQUIRE .EG               | 2K                 | MAIL1 .TXT           | 3K | PCMINFO3 .                    | 11K       | TABS .EG 3K      |
| LETTER .1                 | 2K                 | MASTER .EG           | 2K | POEM .EG                      | 3K        | WHEEL .TXT 3K    |
| 12K free                  |                    |                      |    |                               |           |                  |
| Drive A: group 2 LETTERS  |                    |                      |    |                               |           |                  |
| COVER .                   | 3K                 | EX .1                | 3K | PITCHES .2                    | 2K        |                  |
| DOCUMENT .000             | 2K                 | JACKDAWS .           | 2K | PITCHES .ETC                  | 2K        |                  |
| DOCUMENT .001             | 3K                 | LETTERS .GRP         | 0K | TEMPLATE .                    | 1K        |                  |
| 12K free                  |                    |                      |    |                               |           |                  |
| Drive A: group 3 MANUSCRP |                    |                      |    |                               |           |                  |
| DOCUMENT .000             | 2K                 | MANUSCRP .GRP        | 0K | TEMPLATE .                    | 2K        | USERSPEL .DCT 1K |
| 12K free                  |                    |                      |    |                               |           |                  |
| Press any key to continue |                    |                      |    |                               |           |                  |

When you run the program (PRINTF) this is what happens.



# Spring Fever

*is here again!*

*Yes, forget those winter blues and high-cost software ...*

*...to add some spring sunshine into your life we've come up with some very special bargains, exclusively for 8000 Plus readers!*

*Incredible prices on some of the highest quality software available for the PCW ...*

*... and all you have to do is to use the special order form below and make sure that your order gets to us before 21 June 1989.*

*Go on, spoil yourself ... or treat a friend!*

**HiSoft**  
High Quality Software

**HiSoft, The Old School,  
Greenfield, Bedford MK45 5DE**  
Orders: (0525) 718271, General: (0525) 718181

*All prices include VAT and UK first-class postage,  
Export & Trade details available on request*

Please send me the following for my Amstrad CPC/PCW (\*CPM Plus only):  
prices include P&P and VAT

|                              |          |        |                          |
|------------------------------|----------|--------|--------------------------|
| HiSoft Pascal80              | @ £49.95 | £29.00 | <input type="checkbox"/> |
| HiSoft Devpac80              | @ £49.95 | £29.00 | <input type="checkbox"/> |
| HiSoft C integer compiler    | @ £49.95 | £29.00 | <input type="checkbox"/> |
| Nevada COBOL                 | @ £49.95 | £29.00 | <input type="checkbox"/> |
| ZBASIC interactive compiler  | @ £69.95 | £49.00 | <input type="checkbox"/> |
| FTL Modula-2 compiler/editor | @ £54.95 | £39.00 | <input type="checkbox"/> |
| FTL Editor Toolkit           | @ £39.95 | £19.00 | <input type="checkbox"/> |
| FTL Advanced Prog Toolkit    | @ £39.95 | £19.00 | <input type="checkbox"/> |
| Aztec C Prime                | @ £79.95 | £49.00 | <input type="checkbox"/> |
| Knife Plus disk recovery     | @ £19.95 | £15.00 | <input type="checkbox"/> |
| HiSoft FORTH compiler        | @ £19.95 | £12.00 | <input type="checkbox"/> |

Name:   
Address:

I would like to pay by: ☐ Access ☐ Visa ☐ Cheque/PO

Credit Card No:

Expiry Date:  Signature:



# The Good Software File

Up Date...

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of Databases, Education, Communications and Programming packages to face the ultimate test. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for your needs.

The software listed here represents what we consider to be the best of the many programs available. As well as a brief summary of what they do, the main Plus and Minus points for each program are listed – Pluses have a ▲ by them, and Minuses a ▼. Those we think are particularly noteworthy have a flash on them.

To the best of our knowledge, all the programs here should run on both 8000 series machines and the 9512.

## Databases

There are broadly speaking two different types of database, and which suits you best depends, of course, on what you want it for.

Firstly there's the simple card index substitute. For many home users, this will be the kind of thing you want – all it does is store your address book or stock items so that you can easily look them up.

A more sophisticated option is the programmable database. With these, in addition to allowing simple card index retrieval there is a command language which allows you to analyse the data on the cards. For example, you could automatically add up the money owed to you by all your customers from Yorkshire. To make best use of this kind of facility, you will need to be able to understand a little programming, although it's not too hard really.

A bit of jargon now. A database is said to consist of records – this is just like a card in a conventional card file, with all someone's details on it. Each record is composed of fields – a field is a single entry on a card, like someone's name, or age, or postcode.

The thing that makes a database special is an index. You might be able to hold your address book as a simple list in a word processor document, but if it gets large then this becomes unwieldy. An index means that the database has worked out which order records should be in, so it can go straight to the one you want without looking at lots of others first.

The field that you use as your index (eg someone's surname) is said to be a key field, and can be looked up very fast compared to "non-key" fields. A good database will allow multiple keys, meaning that it can look up data just as fast for a variety of types of information.

### MASTERFILE 8000

£49.95 . Campbell Systems . 0378 77762/3

A specially written PCW version of the successful database sold on other Amstrad computers. It is fully menu controlled, and makes good use of the PCW's special screen and keys. It

can deal with up to 8 separate data files at once, so can cope with relational databases. Screen (but not printed output) can be elaborately laid out with boxes, lines etc.

#### PLUSES • MINUSES

- ▲ Works fast
- ▲ Wide range of Layout options
- ▲ Handles 'relational' files
- ▲ Plenty of good example files
- ▲ Can do arithmetic calculations within its records
- ▼ Capacity limited by size of M drive – best on an 8512
- ▼ Takes a while to learn all the features

### ATLAST

£39.95 . Rational Solutions . 0566 81511

Recently released revised version with new manual and a new price. Atlast Plus is a full featured database that is excellent value for money. It does what Cardbox did, with much better reporting facilities, and can sort too. You can do simple totalling of columns, but not general arithmetic on fields in a record. Its claims to be a true 'relational' database like dBase II are a little grandiose, but a good general purpose database – recommended.

#### PLUSES • MINUSES

- ▲ Good screen editing facilities
- ▲ Constants enable insertion of repetitive data
- ▲ Good on storage space – ideal for 8256 owners
- ▲ Handles names and addresses well
- ▼ Still no arithmetic calculation in field
- ▼ Setting up the database is at first confusing – function of 'SYS' file unclear
- ▼ Good but not that good

### CAMBASE II

£49.95 . Cambrian Software . 0766 831878

New version of the old favourite PCW database. Most important change is the Copy Filespec facility. You can set up a new database with potentially more entries than you've made provision for using the information from the original database. You can also change the fields to suit another set-up.

#### PLUSES • MINUSES

- ▲ Quick and efficient to use
- ▲ You can set up a database blueprint (Filespec) which you can test thoroughly before entering data
- ▲ Includes powerful features like conditionals, loops, field validation, and specified layouts
- ▲ Simple parts of the program are well-covered in the manual
- ▼ Can't use the memory – bad news for 8256 users
- ▼ You have to guess how to use the advanced features
- ▼ Not much room for prompts
- ▼ Tendency to crash occasionally in Filespec

### LocoFile

£29.95 . Locomotive . 0306 740606

The indexed pop-up database that runs from within LocoScript 2 and that goes even further toward turning LocoScript 2 into a completely integrated software package.

#### PLUSES • MINUSES

- ▲ Very easy to use
- ▲ Unusually efficient use of disc space
- ▲ Can alter existing index – a very powerful feature indeed
- ▲ Automatically upgrades your LocoScript, LocoMail and LocoSpell to version 2.2
- ▲ Sample databases help you get a feel for the program
- ▲ Very flexible when designing the record format
- ▲ Carries out searches on partial strings – ideal for when dealing with incomplete information

- ▲ When combined with LocoMail, it becomes utterly indispensable

- ▼ Pity it isn't a stand-alone database to be used with other word processing packages

### CHIBASE 3.0

£29.95 . Chiasma . 06333 60996

The updated version of the 'free format' database. You type in the text, mark the words to be indexed and treat the file as a database. The updated version allows you to import and export ASCII data files and a chain delete option enables you to work your way methodically through the database deleting the records you don't want while keeping those that you do.

#### PLUSES • MINUSES

- ▲ Good amend, sort and recall features
- ▲ You can edit without a word processor
- ▲ Searches quickly through data
- ▲ Great for storing large amounts of data where the subject matter is variable
- ▲ Useful record template
- ▼ Expensive
- ▼ Can't run from m drive

### DELTA

£99.99 . Compsoft . 04868 25925

Delta is another of the heavyweights, like dBase II and Condor, but unlike them is fully menu driven. Although the screen layouts are fully flexible, there is a default "quick" layout so you don't have to sweat at defining your own. It could use better record indexing facilities. Particularly good for writing applications, once you have ploughed through the large manual.

#### PLUSES • MINUSES

- ▲ Records can contain up to 90 fields, plus groups of fields that may be repeated
- ▲ Screen layout can be user defined, or "quick" mode used
- ▲ Single-page letter writer provides detailed mail-merge
- ▲ Processes can be defined, and run from user defined menus, for ease of use by others
- ▲ Very full, and quite readable, manual
- ▼ Only one field may be used for indexing
- ▼ Very big program – a PCW8256 would be hard pushed
- ▼ Some of the menu operations are unforgiving of errors

### POCKET INFOSTAR

£69.50 . MicroPro/DRA . 0386 841181

Consists of two large programs, DataStar and ReportStar (both available independently). DataStar is a conventional database, with screen card layout and indexing. ReportStar then generates the printed output, either from DataStar or CalcStar files. Powerful if you can use them, but the suite is horribly overcomplicated, and the documentation just incomprehensible.

#### PLUSES • MINUSES

- ▲ DataStar is a quite good database with indexing and calculated fields
- ▲ "Transaction processing" feature allows cross-referencing of data files
- ▲ Can be integrated with other Pocket products, eg WordStar.
- ▲ Can take up to 255 fields per record
- ▼ Two-volume manual set is very badly organised
- ▼ There are separate programs to run for form design, data entry and reporting
- ▼ Operation is all by obscure command keys, a la WordStar



# GOOD SOFTWARE GUIDE

## CARDBOX-PLUS

£99.95 . Business Simulations . 0892 863105

Business Simulations are the company who actually wrote the successful Cardbox database, and they are the sole distributors of their enhanced version Cardbox-Plus.

Disappointingly, still no field totalling facilities, but it does boast sorting, index listing, disc management and an autosave feature as extras to Cardbox. The ultimate straight card index, if you have the money.

### PLUSES • MINUSES

- ▲ All the facilities of the very successful Cardbox
- ▲ Cards can be sorted into order for browsing and printing
- ▲ "Autosave" regularly stores the data to disc in case of mishap
- ▲ Files created by Cardbox can be read
- ▲ Full and good manual, although the tutorial is at the end
- ▼ Still no way of performing numeric calculations
- ▼ A lot to pay for a few frills to the basic Cardbox

## DBASE II

£99.00 . Ashton Tate . 0628 33123

The WordStar of database packages. Recently licensed "cheaply" for Amstrad machines, dBase II is a market leader in business computing. As you would expect, this means it is very powerful but very complex. It has a procedure language to allow you to write programs to manipulate the data, and you can construct index files for really fast access to large databases. If you can make the effort to learn it, it'll serve you well.

### PLUSES • MINUSES

- ▲ Powerful command language for customised programs
- ▲ Indexing facility makes large databases fast to handle
- ▲ Can handle very big databases
- ▲ The data can be fairly easily altered after its entry
- ▼ Manual is daunting (but there are plenty of independent books on the market)
- ▼ Can't easily alter the screen record layout
- ▼ An expensive package, you still only get 32 fields per record
- ▼ Generally unfriendly unless you have some programming skills

## FT=DB

£29.95 . Encyclosoft . 0270 811890

A free form database like Chibase, but instead of typing your text into the database itself, you create it on a wordprocessor first of all. Once done and edited to your liking, you mark all the words you want to be used as keywords (still in your word processor) and then read it into FT=DB. Now you can treat it as a database; compile indexes, search for phrases and so on, all quite efficiently.

### PLUSES • MINUSES

- ▲ Easy to use
- ▲ Versatile retrieval system over several text files
- ▲ Inexpensive
- ▲ Can move between index and text at will
- ▼ No editing facilities within FT=DB

## FIRST BASE

£29.95 . Minerva . 0392 3756

Billed as a simple database for the first time user, First Base is quite a competent cheap card index. The manual is computer printed, and weak on diagrams which doesn't help things. One weakness is getting printed results out of First Base – either you settle for crude lists, or you have to create a template in LocoScript which is awkward to do. But overall, for simple applications and beginners, it's pretty good value for money.

### PLUSES • MINUSES

- ▲ Can alter the index field at any time
- ▲ Simple to use screen editing makes data entry easy
- ▲ Good value as a simple card index lookup system
- ▲ Easy to browse through picking out a set by hand
- ▼ Manual is badly laid out and generally difficult
- ▼ Producing printed output is awkward

## SMARTCARD

£59.95 . Focus Computers . 0272 420109

A conventional card index database which is now the nearest thing available to Cardbox. Small and fast, you can sort the records up to three fields and do simple arithmetic in fields. Can't put background text (eg. titles) on records or printouts.

### PLUSES • MINUSES

- ▲ Good clear screens
- ▲ Plenty of on-screen help
- ▲ Fast and high capacity
- ▲ Easy to use
- ▼ Can't put background text on printed reports
- ▼ No way of exporting data for mailmerge

## DATASTORE II

£39.95 . Digita . 0395 45059

Another standard database, written in BASIC and using Mallard's famous JETSAM commands. Is therefore slow in some parts though version 2 is considerably faster than 1. Simple to use, has calculation facilities and a good control over the printed output – your printouts can be made to look very impressive. You have to set the maximum number of records you want before you start, which is tedious, and browsing is slow.

### PLUSES • MINUSES

- ▲ Good range of print format commands
- ▲ Simple to use
- ▲ Calculation facilities – OK for accounts use
- ▲ Nice touches eg text automatically adjusts size to fit printout
- ▼ Must set max. no of records on setting up database
- ▼ Only two print formats per database
- ▼ Slow at browsing through

## SAGESOFT RETRIEVE

£70.00 . Sagesoft . 091 2131555

A high-power package that is relatively easy to use with password security if desired, calculations, automatic counting or deletion of sets of records satisfying given conditions. It also has sophisticated sort and select commands, and can change the structure of an existing database. All this is done by a set of commands rather like a programming language. Printed formats are rather limited though and the program insists on using both drives, making use on a 8256 impractical.

### PLUSES • MINUSES

- ▲ Easy to use for a powerful package
- ▲ Advanced sorting and selection commands
- ▲ Subsets can be written to files
- ▲ Can count or delete subsets with one command
- ▲ Labelling/mailmerging routines included
- ▲ Can change structure of existing database
- ▼ Impossibly big program for 8256
- ▼ Printed output limited – must use mailmerge

## PROTEXT FILER

£24.95 . Amor (0733 68909) . All PCWs

This is a program which adds database features to Protext so that you can use a database system from within the wordprocessor. It's very convenient for maintaining records without having to keep switching to a database package. Except for the sort program, you can work within Protext all the time.

### PLUSES • MINUSES

- ▲ Very easy to use once you learn it.
- ▲ Familiar Protext environment.
- ▲ Good sorting facilities and name handling.
- ▲ Can use Protext/database in parallel.
- ▲ Import/export/print formats no problem
- ▼ No calculation facilities.
- ▼ Selection facilities are a bit crude.
- ▼ If you're familiar with Protext you can probably mimic a database yourself.

## MICROFILE

(Sold in the Micro Collection)

£49.95 . Saxon Computing . 0401 50697

Microfile is a well implemented simple database, driven by plenty of menus and on-screen prompts. It's fast and has good screen control, although it has some size restrictions. Microfile comes as part of a software suite. "The Micro Collection", which is good value (Microfile, Microwrite, MicroSpread, Flexilabel and Lock-It)

### PLUSES • MINUSES

- ▲ The price includes competent word processing, spreadsheet labelling and encryption programs
- ▲ Plenty of menus and on-screen prompting
- ▲ Very flexible formatting for screen layout and printing
- ▲ Numeric fields can be expressions to be calculated
- ▲ Indexing is fast and can be on several fields
- ▼ Maximum number of fields per record is only 20
- ▼ Limited facilities for totalling up fields in a database



## ANIMAL VEGETABLE MINERAL WORLD WISE

£14.95 each . Bourne Educational . 0794 523301

Aimed at the younger market, 7-15 year olds. Both these programs work by learning as the child uses them. Think of an

object and the computer tries to guess it. If it is wrong, the child is asked for a question which would allow the PCW to be right next time, and it learns.

### PLUSES • MINUSES

- ▲ Can be used as many times as the child's imagination holds out
- ▲ Performance can be analysed by a teacher after a session
- ▲ As you build up a base of objects and questions, they can be saved for reuse
- ▼ It needs a lot of typing, hence a lot of supervision
- ▼ The PCW starts with only two objects known, so it takes time to get going
- ▼ Documentation has hardly been altered from cassette-based versions
- ▼ Since it is for young children, more imaginative use of the screen would be nice

## WRITE RIGHT

£9.99 . Wadd Soft . 0253 721303

Program consists of 24 sets of multiple choice questions designed to test and improve the student's knowledge of the English language: sentence construction, spelling, punctuation, vocabulary, for example.

### PLUSES • MINUSES

- ▲ Covers all the most important aspects of language learning
- ▲ Very addictive
- ▲ Good fun and easy to use

## AMSTAT 1, 2, 3, 4, 6 and 7

£28 - £40 . S C Coleman Ltd . 0530 415919

A suite of six statistical routines including a business analysis program, forecasting and resource management. Individual prices range from £27.95 to £39.95. Very sophisticated, and perhaps because of that, a little awkward for beginners.

### PLUSES • MINUSES

- ▲ Good range of statistical functions
- ▲ Excellent manual
- ▲ Can produce good quality graphical results
- ▼ Some of the editing procedures are very long-winded
- ▼ Needs some expertise to use properly
- ▼ Weak on checking that input data is reasonable

## 2 FINGERS TOUCH TYPING

£24.95 . lamsyst . 01 6075844

Despite its provocative name, a useful typing tutor in that it specifically caters for people who can already get by on keyboards with two fingers. You are gradually introduced to touch typing, so your speed doesn't drop while you learn. Fills a necessary slot in the Typing Tutor market.

### PLUSES • MINUSES

- ▲ Suitable for improving two-finger typists without much drop in speed
- ▲ Full on-screen instructions
- ▲ Exercise material is interesting text, not letter drills
- ▼ Explanation text is annoyingly verbose in some lessons
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

## ULTIMATE QUIZ

£14.95 . David Greenhough Computing . 0274 640764

An educational aid for school-age children. Two 'quizzes' on a multiple choice format are available on the one disk. The first one is a general knowledge quiz, the second is based on the Highway Code. You can play against a timer and can set the level of difficulty.

### PLUSES • MINUSES

- ▲ Optional noughts and crosses game included with either quiz
- ▲ Incorporates an editing file for easy updating of questions
- ▲ It's very versatile; up to 8 people can play
- ▲ Provides hours of general knowledge fun
- ▲ None of the questions are repeated
- ▼ Some of the questions are a little esoteric

## SUPERMATHS

£16.95 . Abacus Software . 0689 36293

Specifically designed for the PCW, this program exercises basic numeracy skills in children. Questions are asked in quick-fire volleys of ten and cover all four operations (addition, subtraction, multiplication and so on.) Scores are automatically recorded.

### PLUSES • MINUSES

- ▲ Special original Test and Worksheet modes included – the latter is ideal for teachers
- ▲ Very efficient scoring method
- ▲ Numeracy level is very basic
- ▲ New version has enhanced screen displays
- ▼ Some of the questions may start to look familiar after a while



# Com-Stax

## THE ULTIMATE SPACE SAVER

"Interesting solution ..... interesting price" says 8000 Plus.

The new Com-Stax 8 Series is a unique stand that will stack your PCW 8256 or 8512 plus your keyboard and printer in under a quarter of a square metre of floor space. Its reclining monitor position and angled keyboard make the PCW even more user friendly. The Com-Stax is 98 cm high, 41 cm wide and beautifully finished in durable red, white or black lacquer, the unit comes to you as a flat pack kit which is easily assembled in minutes with the allen key provided



### THE PRICE: £29.95

PLUS VAT £4.49 and P&P £3.75.  
TOTAL £38.19

#### TO ORDER:

Post your cheque for £38.19 together with your name and address and choice of colour: red white or black to:-

COM-STAX LTD, FREEPOST, LONDON, SW5 0BR  
Tel: 01.244 8292

Please allow 28 days for delivery. The Com-Stax is a Copyright design. Patent applied for.  
61 Chandos Place London WC2N 4HG

PCW 9512 and PC15 Models and Add-Ons now available. Phone or write for brochure & prices.

please quote 8

## REPORT WRITER?

If you use your computer to produce reports, proposals, quotations, publicity material or any other type of professional documentation, you will appreciate the importance of the presentation of your work.

The first thing the reader sees is the outer cover of your document, and its appearance is vital!

Now you can create the best impression by binding your documents using our **Easy Binders**. They really are easy to use: all you need is a stapler. They take standard A4 paper and are available in red, white or blue: plain, or with a cutout for the title on your first page.

They cost only 1.50 each, or ten for 10.00. Order some today!

ACCESS welcome. Callers by appointment please. VAT included. Please add 75p P & P.

### BLACKMORE ELECTRONICS LTD.

4 The Plocks, Blandford Forum  
Dorset DT11 7AA



0258 51347 (24hr answerphone)



## MAKE YOUR AMSTRAD EARN!

Yes making money becomes incidental when you know how. Your micro is, if only you knew it, a gold mine. The size and make is irrelevant. Make the initial effort NOW by starting your own

### HOME BASED BUSINESS

This may be the most important move you will ever make! REMEMBER: You'll never get rich by digging someone else's "ditch". Anyone in the country, including YOU, can become very rich in a relatively short period of time just by doing a few basic things! It's more rewarding than playing games. The benefits are many and varied. Full or part time. For FREE details send S.A.E. to:



### HOME BASED BUSINESS

31, PILTON PLACE (8+5)  
KING AND QUEEN STREET,  
WALWORTH, LONDON SE17 1DR

1 Bridge St,  
Galashiels  
TD1 1SW  
Tel: 0896 57004  
(24 hours)  
LOW PRICES

## WORLDWIDE SOFTWARE

All hardware can be delivered and installed in your home/office  
(Nottingham/Derby and surrounding areas only)

106a Chilwell Road  
Beeston  
Nottingham, NG9 1ES  
Tel: 0602 252113

### FAST DELIVERY

### AMX MOUSE/STOP PRESS £69.95

### MINI OFFICE PROFESSIONAL PLUS £49.95 NOW ONLY £39.95

### 10 AMSOFT CF2 DISK £23.95

#### AMSTRAD COMPUTER SYSTEMS

|  |        |
|--|--------|
| 9512 Word processor/daisywheel printer .....   | 505.95 |
| 8256 Single drive Word processor/printer ..... | 373.70 |
| 8512 Dual drive Word processor/printer .....   | 488.95 |

#### PRINTERS

|                                   |        |
|-----------------------------------|--------|
| DMP 3250 di dot matrix .....      | 199.95 |
| DMP 4000 dot matrix .....         | 339.95 |
| LQ 3500 dot matrix (24 pin) ..... | 339.95 |

#### PERIPHERALS

|  |       |
|--|-------|
| Programmable joystick /face .....              | 24.95 |
| CPS 8256 PCW Interface (RS232/Cenronics) ..... | 52.95 |

### AMSTRAD PC RANGE

New reduced prices on full  
range of  
1512 1640 2086

Phone 0602 252113  
For current prices

#### PCW SOFTWARE

|   |        |
|---|--------|
| AMX Mouse/Desktop .....                     | 64.95  |
| AMX Mouse + Desktop Publisher .....         | 58.95  |
| Datastore II .....                          | 28.95  |
| Database Manager Plus .....                 | 28.95  |
| Desktop Publisher .....                     | 19.50  |
| Hisoft C .....                              | 35.95  |
| Hisoft Forth .....                          | 14.95  |
| Hisoft Knife Plus .....                     | 14.95  |
| Hisoft pascal .....                         | 35.95  |
| Locoscript II + Locospell .....             | 32.95  |
| Masterfile 8000 .....                       | 32.95  |
| Masterpack (Masterscan + Masterpaint) ..... | 58.95  |
| Money Manager Plus .....                    | 28.95  |
| Personal Tax Planner .....                  | 18.95  |
| Plan It .....                               | 16.95  |
| Pocket Protext .....                        | 26.95  |
| Prospell .....                              | 21.95  |
| Sage Payslips (1000) .....                  | 38.95  |
| Sage Popular Accounts Plus (Acc+Inv) .....  | 102.95 |
| Sage Popular Accounts .....                 | 71.95  |
| Sage Popular Chit Chat Combo .....          | 71.95  |
| Sage Popular Invoicing .....                | 51.95  |
| Sage Popular Payroll .....                  | 51.95  |
| Sage Popular Retrieve .....                 | 49.95  |
| Sage Statements (1000) .....                | 38.95  |
| Sage Popular - Acc/Pay/Inv .....            | 142.95 |
| Stop Press Software only .....              | 31.95  |
| Supertype II .....                          | 19.95  |
| Tas Sign .....                              | 21.95  |
| Tasprint 8000 .....                         | 11.20  |
| Taspsell 8000 .....                         | 11.00  |
| Tasword 8000 .....                          | 17.50  |

#### PCW LEISURE SOFTWARE

|                                     |       |
|-------------------------------------|-------|
| Bridge Player 2000 .....            | 11.95 |
| Carrier Command .....               | 18.50 |
| Classic Collection .....            | 11.20 |
| Classic Games 4 .....               | 13.95 |
| Classic Invaders .....              | 10.95 |
| Clock Chess 88 .....                | 11.95 |
| Clock Chess 89 .....                | 13.95 |
| Colossus Bridge 4 .....             | 11.95 |
| Colossus Chess 4 .....              | 11.95 |
| Easy Games .....                    | 11.20 |
| Fish .....                          | 18.95 |
| Frank Brunos Boxing .....           | 14.95 |
| F16 Combat Pilot .....              | 14.95 |
| Scrabble .....                      | 14.95 |
| Matchday II .....                   | 11.20 |
| Mindfighter .....                   | 18.50 |
| Professional Adventure Writer ..... | 22.95 |
| Steve Davis Snooker .....           | 11.20 |
| Time and Magik .....                | 11.20 |
| Tomahawk .....                      | 14.95 |
| Trivial Pursuit .....               | 14.95 |

#### PCW EDUCATIONAL SOFTWARE

|                                     |       |
|-------------------------------------|-------|
| Animal/Vegetable/Mineral .....      | 11.95 |
| Better Maths 1 (12 to 16 yrs) ..... | 11.95 |
| Better Spelling (9 to 14 yrs) ..... | 11.95 |
| Biology 1 (12 to 16 yrs) .....      | 11.95 |
| Chemistry 1 (12 to 16 yrs) .....    | 11.95 |
| Magic Maths (4 to 8 yrs) .....      | 11.95 |
| Maths Mania (8 to 12 yrs) .....     | 11.95 |
| Physics 1 (12 to 16 yrs) .....      | 11.95 |
| World Wise .....                    | 11.95 |

Credit card orders accepted by phone or mail. All prices include VAT and delivery in the U.K. Overseas locations



ALL UK DELIVERIES  
BY 1ST CLASS MAIL

supplied with carriage at cost. Educational/Govt./Commercial orders welcome.

Cheques etc. payable to WORLDWIDE SOFTWARE.

ALL UK DELIVERIES  
BY 1ST CLASS MAIL

VISA



# GOOD SOFTWARE GUIDE

## LANGUAGE TUTOR

£19.95 each. Kosmos Software. 05255 3942/5406

Four programs with identical formats to help you learn French, Italian, Spanish and German. They can be used just as effectively by students of those languages learning English too. Very versatile series of programs and useful adjuncts to conventional language learning.

### PLUSES - MINUSES

- ▲ Can edit the lessons yourself to include new words
- ▲ Useful self-test option
- ▲ Completely bi-lingual packages
- ▼ Purely for learning vocabulary - no grammar lessons
- ▼ Would have been useful if they had also included cassettes

## GIANTKILLER

£14.95. Topologika. 0733 244682

A mathematics adventure game loosely based on Jack and the Beanstalk. Lots of intriguing puzzles which should stimulate any student up to GCSE standard. Not the best adventure game ever written but great for making mathematics fun!

### PLUSES - MINUSES

- ▲ Puzzles plausibly integrated into scenario
- ▲ Progression of game is simple and well defined
- ▲ Puzzles introduce a lot of valid mathematics
- ▼ Program understands only very simple commands
- ▼ Saving a position takes a move - can be fatal
- ▼ Won't be of particular help in exams

## MATHS MANIA

£16.95. School Software Ltd. 010 353 6145399

For children between the ages of 8 and 12, this program offers 5 levels of difficulty in multiplication and 2 in division. A very good program for exercising basic numeracy skills and for practising some mental arithmetic.

### PLUSES - MINUSES

- ▲ Program provides a chirpy feedback on the score of the user
- ▲ Large attractive numbers appear on the screen
- ▼ Surprisingly enough, no addition or subtraction exercises are provided
- ▼ Screens could be made more visually exciting for the younger users

## BETTER MATHS

£16.95. School Software Ltd. 010 353 6145399

A continuation of Maths Mania for the next age-group - 12 to 16-year-olds. Topics are very varied and cover, among others, statistics, simple interest and algebra. Each topic consists of a series of ten multiple choice questions. At the end of each set, the percentage scored is shown.

### PLUSES - MINUSES

- ▲ Realistic level of difficulty practised
- ▲ Program makes a first-class revision aid.

## BETTER SPELLING

£16.95. School Software Ltd. 010 353 6145399

This is a spelling course aimed at the 8 to adult age group. It consists of a series of well organised, short lessons each dealing with one topic, like plurals or which version of there/their/they're to use in a sentence.

### PLUSES - MINUSES

- ▲ Well thought out lessons to emphasise particular points
- ▲ Teaches words in a sentence context as well as in isolation
- ▲ Lessons can be picked in any order from a menu
- ▲ Seems to be proof against mischievous key pressing
- ▼ Boring use of the screen doesn't grab interest
- ▼ No instructions come as to how to use the program

## YES CHANCELLOR

£14.95. Topologika. 0733 244682

Wait! Don't skip over Yes Chancellor! because it calls itself an 'economic simulation' program. Instructive and fun to use, you type in your annual budgets (tax rates, public spending, etc.) and see your popularity plunge and the economy crash. Great for economics classes, also an amusing game in itself.

### PLUSES - MINUSES

- ▲ A simple but effective model of the economy
- ▲ Comes with booklet which explains economic principles
- ▲ Great for teaching economic and political pragmatism
- ▼ Can get boring as a game
- ▼ You can't adjust the model of the economy, so it can be too simple

## IANKEY CRASH COURSE

£24.95. Iansyst. 01 607 0187

A fairly traditional typing tutor, taking you through basic keyboard exercises. There's a lot of explanatory text, which

gets in the way second time around. Definitely competent, but a bit boring.

### PLUSES - MINUSES

- ▲ Mostly avoids boring letter drills
- ▲ Very full on-screen information guides you along
- ▲ 'Fast' option cuts out some text if it gets repetitive
- ▼ Not particularly imaginative use of graphics
- ▼ It doesn't always ensure that the cursor is properly aligned with the exercise text

## CHEMISTRY • BIOLOGY

£22.95. School Software. 010 353 6145399

These two are fairly traditional question-and-answer tests. You are faced with a choice of 10 topics, and then asked 10 or so questions each, where you have to fill in the blank in a statement. There are preamble notes beforehand, and if you get it wrong you are given a clue. Aimed at 12-16 year olds.

### PLUSES - MINUSES

- ▲ Questions would challenge a GCSE pupil well
- ▲ Preamble notes introduce topics
- ▼ The fill-in-the blank questioning style has little flexibility for different answers
- ▼ No option to add questions for a specialised syllabus
- ▼ Some careless errors, like incorrect facts and hard to decipher chemical formulae

## MICRO MATHS

£24.95. LCL. 0491 579345

Supposedly covering 8 to adult ages, this seems an O-level type program, covering topics from calculus to tables. A good implementation on the PCW with proper use of the screen. Questions are picked at random from a pool, so may repeat but never run out. Replies to questions are typed in mathematical notation, like  $X \times 2 + 3$

### PLUSES - MINUSES

- ▲ You can pause to use BASIC as a calculator while you think
- ▲ 'Unlimited' question set
- ▲ Comes with a 'free' book of AEB O-level questions
- ▲ Good hints and explanations when you get an answer wrong
- ▼ Questions repeat occasionally
- ▼ Some frills, like the clock and beeper, are annoying
- ▼ No flexibility to add questions for a particular syllabus



Communications is one of the glittering areas of computing, gurus would have you believe.

It can provide a fascinating hobby for 'hackers', but more importantly it is a valuable business tool.

'Electronic mail' is just what it says: you use your PCW to send messages, which can be documents thousands of words long, to others on the electronic mail system. The best known system of this kind is Telecom Gold, which also allows you to send telexes. Another major system is Prestel, which is more of an information provider - you can read share prices, weather information and other news direct from your phone line.

For any professional service, you pay a registration fee, plus a connection charge - typically around 10p per minute you use the system.

Of course, your phone bills are extra. For hobbyists there are also 'Bulletin boards', which are effectively a kind of private electronic mail system run by a system operator (a 'sysop' to those in the know).

To use any service, you will need to buy a modem and an interface. A modem allows you to send computer signals down a phone line and the interface gets the signals from your PCW to your modem. The pair will set you back £200 or more. Once done, you need some software to allow you to send and receive data and it is this software

reviewed below.

Electronic mail services just send strings of characters to and fro, whereas Prestel is a 'Viewdata' system, meaning it sends pictures and graphics too. Software needs to do more to receive Viewdata graphics, so if you want to use Prestel make sure your software is up to it.

## 8256UKM7.COM

Public domain (ie. free!)

PD software documentation is often poor but this program has an above average document file. UKM7 was written to support ASCII file transfers using error correction and as a dumb terminal either for use over the phone or between two Amstrads. Between two PCWs file transfer is possible at a staggering 31,250 baud which is even faster than PIP! Easy to use for beginners and better than KERMIT, UKM7 provides a cheap and excellent way to communications after you've got fed up with the PCW's MAIL232. 8256UKM7 is available from the Public Domain Special Interest Group, or most bulletin boards supporting the PCW machines.

### PLUSES - MINUSES

- ▲ Cheap! (the price of a phone call)
- ▲ Easy to use, and helpful menus
- ▲ Both CRC and Xmodem protocols supported
- ▲ Single file and Batch Mode transfers
- ▲ 'Quiet' mode for slightly faster transfers (on-line transfer progress report disabled)
- ▼ Only ASCII, no Viewdata
- ▼ You need to find a PD software source (eg. use a modem and MAIL232 software)

## DIALUP

£89.99. PMS Communications. 021-643 7688

Offers both E-mail and Viewdata operations. Very easy to use, and offers an XMODEM transfer protocol unlike Sage ChitChat. If you are buying a modem too there are some cut-price bundled deals to be had, eg. the Miracle Technology WS4000 modem.

### PLUSES - MINUSES

- ▲ Simple to use
- ▲ Comprehensive file transfer commands, including XMODEM and the increasingly popular KERMIT
- ▲ Runs from the M drive
- ▼ Manual is not PCW specific, and the references to 5.25" discs are tedious

## CHITCHAT

### AIL/VIEWDATA/COMBO

Sagesoft. £69.99/£69.99/£99.99. 091 2131555

Two communications programs for the 8000 series machines that have been around for a good time now. Most of the features you will need are here: message text editor, pre-programming unattended tasks (if you use a suitable 'intelligent' modem), directory of stored numbers, copy to printer, and a very useful connect time clock so you can watch your phone bill climb! E-mail is used for simple text phone links like Telecom Gold, whereas you'll need Viewdata if you want to use Prestel.

The Combo pack contains both E-mail and Viewdata.

### PLUSES - MINUSES

- ▲ Good, clear documentation
- ▲ Easy for first timers to use
- ▲ Built in text editor for pre-sending message preparation
- ▲ Pre-definable tasks executable at any preset time if unattended
- ▼ No error corrected file transfer (ie Xmodem or CRC)

## COMM+

£86.25. NewStar. 0277 220573

This single package combines both ASCII and full Viewdata block graphics and Telesoftware downloading. A very powerful command language allows you to look for particular messages coming in and take actions, even while doing other things. Its use is only limited by your programming ability.

### PLUSES - MINUSES

- ▲ Very comprehensive and well indexed ringbound manual
- ▲ High quality Viewdata graphics
- ▲ Well presented on-line help menus for use by beginners
- ▲ Autodialler program works with most manual modems
- ▲ Telesoftware downloading facility, with CRC/Xmodem checking
- ▲ Very powerful command language, doesn't need much programming skill to learn
- ▼ Not recommended for absolute beginners to communications



# Programming

Programming languages come as either 'compilers' or 'interpreters' – compilers pre-process the program into machine code, so generally tend to be considerably faster. The PCW's standard Mallard BASIC and LOGO are both interpreters, on the other hand. Put simply, this means that each line from a text file full of line by line instructions is taken and interpreted individually. These languages, not surprisingly, tend to be much slower. Compilers are generally more cumbersome to use than interpreters, but their benefits are obvious. With language compilers in particular, it is difficult to know exactly how reliable and efficient they are without spending many weeks working with them – near impossible for the purposes of a brief review. If you have regularly been using a specialised programming language over quite a long period of time and have any comments that you think would help us compile a good software file entry for it, we would be only too pleased to hear from you.

## ALL YOU EVER...

£24.95 . CP Software . 0993 823463

Program is ridiculously entitled *All You Ever Wanted To Know About Graphics, the Universe and Everything on the PCW 8256/8512 but were Afraid to Ask*. It's for the experienced programmer who needs fast, smoothly-flowing and professional-looking graphics output. It has a library of machine code routines which you can use in any language from Mallard Basic to machine code.

### PLUSES • MINUSES

- ▲ Graphics of same standard as those found in professional packages
- ▲ Demo programs included on the disk
- ▲ Routines are very wide-ranging
- ▲ Excellent value for money
- ▲ New routines of latest version concerned with printer control
- ▼ Not recommended for beginners
- ▼ Cumbersome to use from BASIC

## PASCAL/MT+

£45.00 . Digital Research . 0635 53499

A full implementation of ISO standard DPS/7185 Pascal with a number of extremely powerful additions. Is very good for large complex applications – both data-processing and system control.

### PLUSES • MINUSES

- ▲ A very powerful tool for the serious software writer
- ▲ Unlimited program size with modular development and use of overlays
- ▲ Built-in assembler
- ▲ Improved string handling (over standard Pascal)
- ▲ Choice of BCD real numbers for commercial/financial use
- ▼ No built in text editor – will need to operate separately
- ▼ Compiler in general and the manual in particular are not for beginners
- ▼ No graphics

## MIX C

329.95 . Advantage . 0242 224340

American C compiler. You can buy a full screen editor with it for £19.95 extra. Also machine code assembler & examples for £8.95 each

### PLUSES • MINUSES

- ▲ Features a C tutorial
- ▲ Comprehensive implementation and massive manual
- ▼ Not for the newcomer to programming

## DEVPAK 80 MKII

£49.95 . HiSoft . 0525 718181

Version 2 of the PCW hacker's first choice of development system. Substantially upgraded from the original with a new quite powerful debugger, and a Mini Office-style main menu from which to run the individual utilities or your own finished programs.

### PLUSES • MINUSES

- ▲ Powerful assembler producing REL files
- ▲ Good hex facility for BASIC programmers
- ▼ Text editor antiquated and clumsy
- ▼ Weak monitor

## HISOFT C

£39.93 . HiSoft . 0525 718181

A very good C compiler, fast, produces good compact code.

### PLUSES • MINUSES

- ▲ Compiles program into ordinary CPM.COM file
- ▲ Produces compact code
- ▲ Fast and inexpensive
- ▼ No floating point arithmetic

## LFORTH

£19.95 . HiSoft . 0525 718181

Forth is an unusual language, somewhere between assembler and C. This is one of the few compilers available for the PCW.

### PLUSES • MINUSES

- ▲ Comes with a Forth editor
- ▲ Quick and efficient implementation
- ▼ Manual doesn't teach you Forth

## PASCAL

£39.95 . HiSoft . 0525 718181

HiSoft's Pascal is a complete implementation of Wirth's famous language. Not only is it one of the easiest compiled languages to learn but this version runs fast too.

### PLUSES • MINUSES

- ▲ Well integrated text editor – when you hit a compilation error you are returned to the correct point to edit it
- ▲ Short compilation time, economical on memory
- ▼ Manual makes no attempt to teach you Pascal

## THE VICAR

£9.95 . lamsyst . 01-607 5844

A programming tool for serious programmers. If you have a several-hundred line program held in several files on a disc, you can lose track of which variables are used where. The VICAR produces a concordance listing and other diagnostics, to help you find bugs and maintain the program.

### PLUSES • MINUSES

- ▲ Easy to use but still flexible through use of options
- ▲ Amstrad versions all at a special low price
- ▲ Good manual
- ▼ Only of value on large programs

# GOOD SOFTWARE GUIDE

▼ Limited value to most PCW users (except BASIC buffs)

## MODULA 2

£45.00 . FTL/Grey Matter . 036453499

A compiler. Modula-2 is the successor to Pascal, good for large programs requiring separate compilation.

### PLUSES • MINUSES

- ▲ Full implementation with extensions.
- ▲ Includes libraries of predefined modules
- ▲ WordStar-type screen editor included
- ▼ Compilation process is longwinded and not for beginners

## CBASIC

£45.00 . Digital Research . 0635 35304

Compiler

### PLUSES • MINUSES

- ▲ Easier programming tool than conventional BASIC interpreter
- ▲ Very similar to BASIC, so easy to learn
- ▼ No text editor – must split your programs into 200 line chunks to work on
- ▼ Programs work no faster than they would in conventional BASIC, sometimes slower
- ▼ Non-programmers may get bored

## MAXAM II

£49.95 (£69.95 inc. C) . Arnor 0733 68909.

All PCWs..

CP/M machine code development system incorporating an editor, assembler and monitor. It will allow you to disassemble extra memory on m: drive.

### PLUSES • MINUSES

- ▲ Very versatile assembly language programming environment
- ▲ Flexible monitor capable of bank switching, conditional breakpoints and symbolic debugging.
- ▲ Tailored to meet all CP/M Plus programming requirements
- ▲ Program can't cope with some undocumented Z80 instructions.
- ▲ Program assumes basic familiarity with the Z80 assembly language.

## ARNOR C

£49.95 . Arnor . 073368909

Good compiler with floating point arithmetic, but not as fast or as cheap as HiSoft C.

### PLUSES • MINUSES

- ▲ Excellent integrated text editor
- ▲ Floating point arithmetic
- ▼ Cumbersome to produce .COM files; needs special run-time support program
- ▼ HiSoft C is faster and cheaper

# N E X T M O N T H

The guide continues with the categories of SPREAD-SHEETS, GRAPHICS and GAMES. The month after that will cover WORD PROCESSORS, ACCOUNTS/PAYROLL, UTILITY and DTP software, and the month after that it's back to this month's topics.

Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.75 each.

Meanwhile, if you are aware of any significant omissions or errors in the File as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.







### 8000 plus disc labels

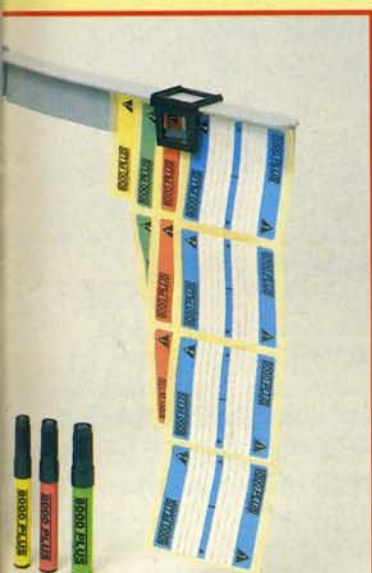
Packet of 20 for £1

(when ordered with another product)  
Spare labels for your 3" discs in four different colours—yellow, green, red, blue. **Order Code 8013**

### Copi-Reader

This neat and easy copy holder features a unique new clip. It can be positioned on either side of the monitor, and maybe swiveled into position for easy eye contact, and then to the side when not in use.

£6.99 **Order Code 8075**



### Highlighter Pens

Three for £1.50

For £1.50 you get green, red and yellow 8000 Plus-stamped pens in a clear plastic wallet.

**Order Code 8001**

### 8000 plus dust covers

3 piece set for 8256/8512 only £11.95

3 piece set for 9512 only £12.95

Protect your PCW with these specially-commissioned three-piece 8000 Plus covers.

**Order Code 8005 (8256):**

...8006 (9512)

### 5. 8000+ T-Shirt

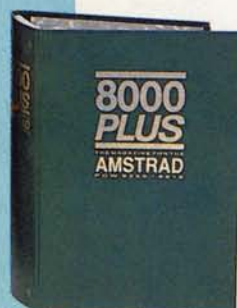
The Truly Terrific American Royal Blue T-shirt with the honour of carrying our 8000+ logo on the left breast. Wear yours with pride and set yourself above the rest!

**Price £3.95**

**Medium Order Code 8071**

**Large Order Code 8072**

# 8000 PLUS



### Magazine Binders

Store up to 12 issues for just £4.95

A superb gold-embossed green binder. Buy one and watch your collection grow into the definitive library of PCW info.

**Order Code 8004**

**Buy two for £9.00 Order Code 8076**

### PCW Luggage

An essential addition for any PCW owner who wants to ensure against accidental knocks when transporting his PCW. Ideal for writers on assignment, businessmen when taking the micro to the office, or salesmen for demonstrations.

High density foam

padding and a water resistant nylon exterior make this a strong and safe piece of luggage, along with its adjustable shoulder strap and sturdy carry handles.

### 8256/8512

Two separated pouches for the printer and keyboard, that then fit

neatly into the large case but leave room for manuals, etc.

**RRP £44.95 8000+ Price £35.95**

**Order Code 8074**

### 9512

Two large cases for the monitor and printer, with a

separated

pouche for the keyboard that fits in neatly with the printer but leaves room for manuals, etc.

**RRP £58.95 8000+ Price £49.95**

**Order Code 8073**





# 8000 PLUS



## DESKING TWO

A complete and mobile workstation with slide-away keyboard to save space, and most attractive two-tone grey metal construction with non reflective work surfaces and locking castors.

Comes complete with adjustable printer shelf, printer tray and basket.

Easy assembly and optional side extension.

With extension Order Code 8063

**RRP £195.50 OUR PRICE £159.95**  
**SAVE OVER £35**

Without extension Order Code 8064

**RRP £169.95 OUR PRICE £139.95**  
**SAVE OVER £30**

**LocoFile**  
The pop-up database for LocoScript 2

**FREE!**  
With your copy of LocoFile  
• LocoScript 2 full colour wall chart  
• Set of 3 highlighter pens

## LOCOFILE

**£29.95 plus Locoscript II wall chart and highlighter pens**

'It's difficult to think of any LocoScripters who wouldn't find LocoFile useful', was Rob Ainsley's conclusion when he previewed Locomotive's new database in issue 26 of 8000 Plus.

The fact is, a database which can be accessed from inside LocoScript II and is fully compatible with LocoMail is a brilliantly logical idea. Locomotives usual panache comes to the fore in the feel of the program too. Essentially an easy to use card index, LocoFile features flexible indexing, fast lookup, efficient use of disk space and is suitable for any PCW (plus three hard disk drives).

Features include:

- Look up or change card details from within LocoScript
- CUT and PASTE to and from LocoScript
- Use up to eight indexes at once - alphabetic or numeric
- Cards up to 99 lines by 80 columns wide
- Up to 50 items per card
- Holds 1,000 names and addresses on a 706K disk
- No limit to number of entries on hard disk
- Add or delete fields, change card size at any stage
- Fully two-way compatible with Loco Mail

For all LocoScript 2 users who want an expandable suite of applications, Locomotive is providing the answer without ever having to boot up CP/M! LocoFile provides the classic easy-to-use environment familiar to LocoScript users and has all the hallmarks of a major software launch - Sighs of relief all round!

**Order Code 8044 (8256 version)**  
**8048 (9512 version)**

## AMGARD SCREEN FILTER

**RRP £71.24**

**OUR PRICE £65.95**

Since a "Health & Safety" feature appeared in another of our publications about a year ago, the Amgard screen filter has been in constant use within our offices here at Future Publishing.

Acting as a photographic plate the filter eliminates unnecessary Ultraviolet emissions that cause visual fatigue (or eyestrain). Easy to fit - with FREE anti-static cleaning kit to sharpen your image and readability.

**Available for the PCW 8256/8512**  
**Code No 8061**  
**for the PCW 9512**  
**Code No 8062**



## FISH

Rainbird/Magnetic Scrolls

**RRP £24.99 OUR PRICE £19.95**

As reviewed in issue 30 of 8000 Plus.

**ONE NIBBLE AND YOU'RE HOOKED**

An adventure game where you play the part of a goldfish !?

With full marks for originality and excellent graphics on a PCW

With characters such as Chuckette Cemethead and Captain Horatio Pineapple, just two of the members from the "Seven Deadly Fins" - as your enemies your task is to recover the stolen "Focus Wheel"

A well written game from the authors of such classics as "The Pawn" and "The Guild of Thieves" - an essential piece of light relief from Locoscript!

**Order Code 8060**  
**(All PCW's)**





## BLACKSTAR from CDS

RRP £19.95

8000+ Price **£9.95**, a saving of £10.00!!

Imagine...

As you awaken from a sleep troubled by strange dreams and visions you find yourself in a luxurious room furnished in silver and glass. The ceiling is high and arched with a huge relief map of the moon hanging overhead. The most striking feature of the room is the woman speaking to you. She is tall and willowy with hair like spun silver. She carries easily an air of authority and wisdom. She speaks again, "... finally when you locate the orb you must return it to me. You may keep any mortal treasures you find after I have cleansed them of their evil". She pauses then, "Go forth and do my bidding" You bend and bow saying, "My Lady Artemis..." Darkness enfolds you, until suddenly you find yourself awake in the sunlight of the vale of the castle Blackstar. Your quest has begun...

Order Code 8077 (Only 8256)



## PERSONAL TAX PLANNER from DIGITA INTERNATIONAL

RRP £24.95 8000+ Price **£17.95**

Plan your own tax and make sure your tax man is doing his job correctly. Information, once entered, can be easily saved and amended and this then can be used to provide useful "what if?" calculations on your tax liability. Written by a professional accountant, but is suitable for any tax-conscious PCW user.

Order Code 8078



## 3" HEAD CLEANING KIT

Protect your disk drive and ultimately the life of your disks and data by regularly cleaning your PCW's drive with this head cleaning kit. Included in the pack is a disk and the cleaning fluid that eliminates dust and other nasties!

8000+ Price **£7.99**

Order Code 8079



## 8000+ SPORTS COLLECTION

The 4 Games together would cost £68.96,  
8000+ Price **£35.99**,  
a saving of over £32.00!!

Consisting of FOUR great titles from CDS:-

**Colossus Chess 4.0**

offering the choice between the usual two dimensional flat board display or the new three dimensional real life board. It comes with a comprehensive instruction manual and is an excellent program for casual and serious players alike.

**Steve Davis Snooker**

features included:- infinitely variable speed, accurate spin, break score table, foul shot routine and sound.

1 or 2 player games.

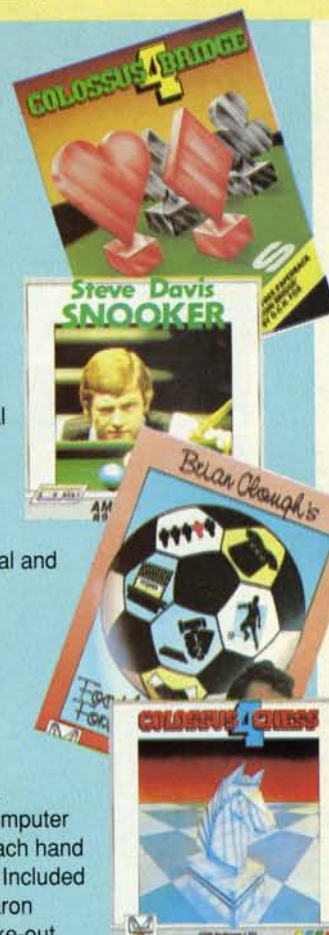
**Colossus Bridge 4.0**

Colossus allows one player to play a complete game of Bridge with the computer controlling the other three hands. Each hand is bid according to the Acol system. Included are the Blackwood, Stayman and Baron conventions. The strong club and take-out doubles are also supported. All four hands are displayed at the end of play, followed by the score to rubber.

**Brian Clough's Football Fortunes**

A football management game with a big difference. The game can be played by two to five players (managers), each manager must successfully steer his team through the season, using his skill to make his team stronger as the game proceeds. He competes with human and computer controlled teams in a ten strong league, and the F.A. Cup. Contents included:- playing board, 5 coloured counters, 112 player cards, 6 immunity cards and a pack of money.

Order Code 8080 (All PCW's)



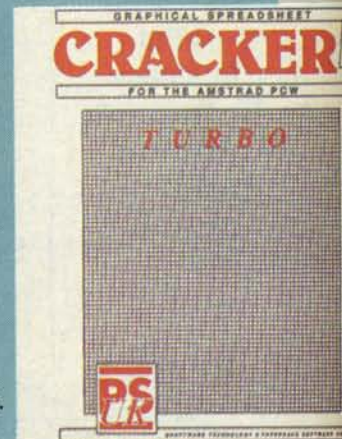
## CRACKER TURBO 2 From PAPERBACK SOFTWARE

RRP £49.95

8000+ Price **£26.95**,  
a saving of **£23.00!!**

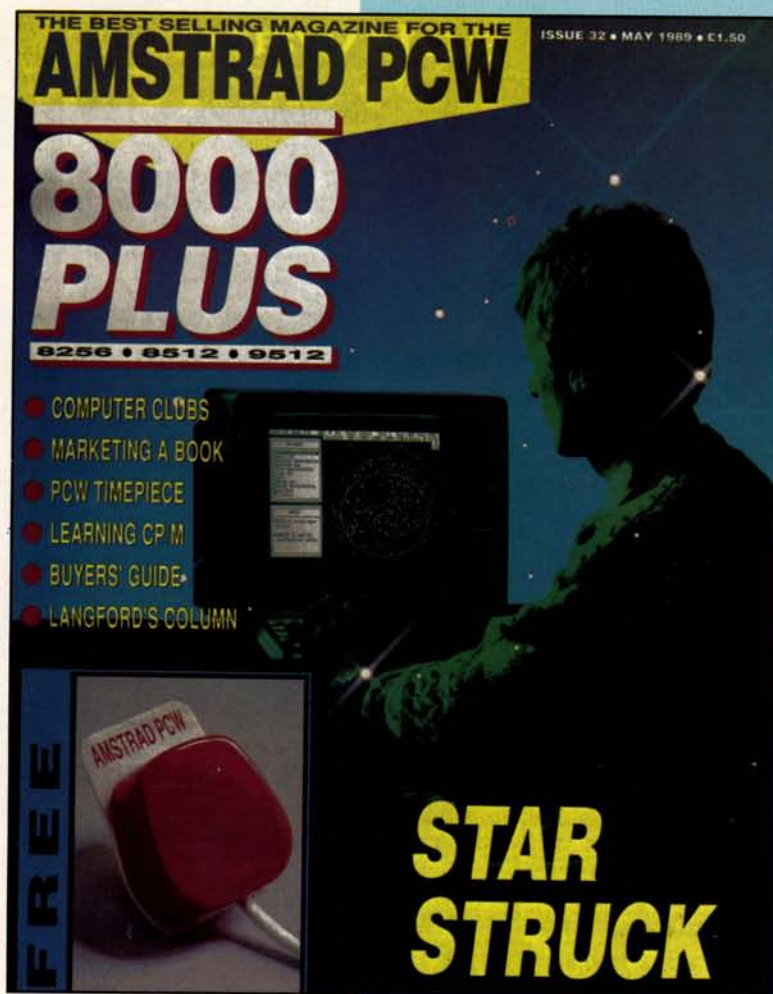
The all-powerful spreadsheet with Turbo! A full functioning spreadsheet, including financial and scientific capabilities, but that can also create complex graphs on the screen and (dot matrix) printer, including bar charts, stacked bars, line and pie charts. With a full comprehensive manual in a spiral bound binder, and 30 days FREE technical support from the publisher, this is an absolute must.

Order Code 8081





# Subscribe now...



● 12 Issues of the magazine delivered to your door, why queue only to find out that your local newsagent has probably sold-out?

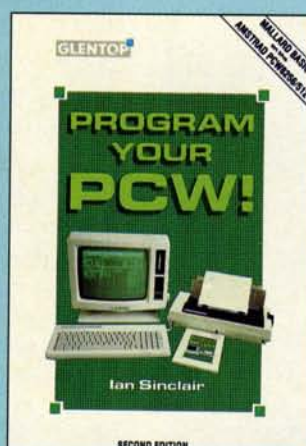
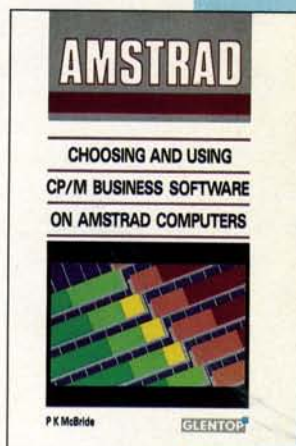
● **Guarantee**

If at any time during the subscription period you are not completely happy with our service, we will refund the unmailed copies.

● We can't hold this remarkable price for long, subscribe now before the increase!

**... to the best selling magazine for Amstrad PCW's at only £17.95... and receive one of the following three books FREE!! Just take your pick!!**

1. Choosing and using C/PM Business Software on Amstrad Computers.  
Value £8.95  
Order Code 8301



2. Programming your PCW  
Value £8.50  
Order Code 8302



3. Mallard Basic – Introduction & Reference  
Value £9.95  
Order Code 8304

See the order form on page 85

● SUBSCRIBE ● HOTLINE 0458 74011 ● SUBSCRIBE ●



# BACK ISSUES . . .

We have limited quantities of the back issues listed below. The prices include a nominal 25p postage. All issues contain excellent TipOff sections and a selection of BASIC listings, plus the other regulars. Don't miss the chance to expand your collection!



## Issues 1-13 SOLD OUT

**Issue 14** £1.75 Full review of the PCW 9512. Connecting to a synthesizer. LocoScript 2 wallchart. Reviews of Poolswinner, low-cost business software, battery backups. **Order code 8022**

## Issues 15 & 16, SOLD OUT!

**Issue 17** £1.75 Specialist Software. Stop Press Review. SETKEYS command explained. History of computers, series.. **Order code 8032**

**Issue 18** £1.75 LocoScript vs. Protex, Hard discs, CP/M for hackers, AtLast Plus review. **Order code 8026**

## Issue 19 SOLD OUT!

**Issue 20** £1.75 Computer filofaxes Mini Office tutorial Add your own 2nd drive Cracker Turbospreadsheet **Order Code 80020**

**Issue 21** £1.75 New Locoscript fonts reviewed. Guide to add-ons PC?PCW link. Poster printing packages reviewed **Order Code 80021**

## Issues 22 & 23 SOLD OUT - SORRY!

**Issue 24** £1.75 9512 Special Report Four-page features back issues index Astrology, cricket, database reviews DIY Graphics

## Mini Office book .Order Code 80024

**Issue 25** £1.75 Spreadsheet special Flipper review DIY share analysis Home banking Jeffrey Archer & his PCW's GSX graphics 2nd hand PCW Guide **Code 80025**

**Issue 26** £1.75 LocoFile exclusive preview BASIC wallchart PCW portable preview Disc doctor LocoScript books Devpac 80 2 **Code 80026**

## Issue 27 & 28 SOLD OUT!!

**ISSUE 29** . £1.75 THE VERY best in Educational Software Pools Predictor-Get your CPC to win you a fortune!! **Order Code 80029**

**Issue 30** £1.75 Speech synthesiser Teach your PCW to talk back Transferring files from a PCW to a PC Lightening Basic review. **Order code 80030**

**Issue 31.** £1.75. Writing a thesis, the 'do's' and 'don't's'. Your database with Protex. Amstrad SM2400 Modem. What is C/PM **Order Code 80031**

**Issue 32.** £1.75. Astrology on your PCW. Learning C/PM. PCW User Groups. The Amstrad-Sugar story. Publishing books. **Order Code 80032**

## ORDER FORM NO.32

### HOW TO ORDER

Just list the items you require in the Order Form below or ring our 24 - hour hotline on (0458) 74011 and ask for Credit Card Orders. All goods are sent by first class post, normally within five days of order. But please allow 28 days in case of temporary shortage.

#### New Subscribers please note:

The first issue of a new subscription will be one or two issues away from the one current when you place your Subscription Order.

Please send me the following items from the 8000 PLUS Special Offers pages

Name \_\_\_\_\_

Address \_\_\_\_\_

Postcode \_\_\_\_\_

Send this form plus payment to:  
SPECIAL OFFERS • 8000 PLUS • SOMERTON  
SOMERSET • TA11 7PY (valid until JUNE 30th 1989)

| Order code | Title | Price |
|------------|-------|-------|
| 1.         |       |       |
| 2.         |       |       |
| 3.         |       |       |
| 4.         |       |       |
| 5.         |       |       |
| 6.         |       |       |

Payment is by (please circle)

Cheque ● PO ● Access ● Visa

Make payable to FUTURE PUBLISHING LTD.

Your credit card number is \_\_\_\_\_

Expiry date \_\_\_\_\_

Pounds Sterling Only Accepted

ACCESS / VISA  
HOTLINE  
0458 74011  
24 HOUR HOTLINE



# POSTSCRIPT

## Torrents of text tackled theosophically - even the technical

Yes, it's that time of the month again when a handful, from among the many thousands, have their words of wisdom scattered across the newsagents of England - and beyond. 8000 Plus is an international magazine these days with letters arriving from a variety of far-flung places.

However, it isn't where they come from that counts but what's in them. Send your correspondence, however interesting or informative, to Postscript, 8000 Plus, 4 Queen St, Bath, England, BA1 1EJ.

### Living in hope

Although this is not a suggestion for improvement to 8000 Plus, which I regard as an excellent publication, I would like to know if you received a letter from me about five months ago.

The letter concerned the availability of RTTY software for a PCW 8512 linked to a YAESU FRG8800 radio receiver through a FIF CAT and Amstrad RS232C Interface.

Glyn Upham  
Ilminster  
Somerset

**8000 PLUS.** Before my time, I'm afraid, but there is no PCW specific software aimed at radio amateurs that I know of, though there are bound to be some in the public domain. Perhaps someone who knows of such a thing would write in.

### The bigger they are

Having upgraded an Amstrad 8256 with an additional disc drive (although not as yet with a memory upgrade), the second drive seemed to work far more slowly than the original A: drive. Stopwatch in hand, the three disc drives were each compared for the same three tasks on a 22k file (working in LocoScript 2):

- 1 'Finish Edit' on LocoScript 1 document, converting to LocoScript 2.
- 2 'Finish Edit' on LocoScript 2 document.
- 3 Scrolling through LocoScript 2

document using the down arrow key. The results of these tests were as follows:

| Drive: | Test 1 | Test 2 | Test 3 |
|--------|--------|--------|--------|
| M      | 64 sec | 8 sec  | 49 sec |
| A      | 78 sec | 19 sec | 55 sec |
| B      | 98 sec | 29 sec | 61 sec |

These show all too clearly that the new B: drive was always slower than the original drive, and for the most common task ('Finish Edit' from LocoScript 2 document) was half as slow again as the A: drive, and more than 3 1/2 times slower than M: drive.

Richard W Semmens  
York

**8000 PLUS.** File-handling to and from disc is partly dependent on the size of the drive but more so on the position of the files on the disc. If they're near the outside it's quicker to get to them, and no file can be more than 40 tracks in on the A drive whereas they can be 80 in on the B drive. The fragmentation of the file is important too. Unfragmented files are faster to read.

### Chip chat

I come to your magazine via Steve Patient's article in Computer Shopper and a customer who insisted on buying a 9512 instead of a PC. Despite my misgivings about the machine, it does seem to be well-supported by your advertisers, some of whom seem to know more about it than Amstrad themselves!

I like the 'clubby' atmosphere of 8000 Plus - this is conspicuously

absent from most PC magazines, and seems to suggest that there are more true enthusiasts for the PCW (perhaps you have to be...). I also approve of your attitude towards software reviews, as indicated in your reply in 'Tipoffs' (April) to the enquiry about accounting programs. I wish more periodicals were as conscientious. A review of these programs would be useful, though, as they are difficult for the prospective purchaser to evaluate.

By the way, what do you know about high memory faults in the 9512? I gather that a faulty batch of IC's is responsible for these, the symptom being difficulty in formatting high-numbered disc tracks (which looks like a fault).

Finally, I much enjoyed the LocoToy spoof. It certainly took me in at first - it was only when I got to considering how the machine would know which way up it was that I fell in!

F James Pickett  
Isle of Wight

**8000 PLUS.** As long as you got here eventually, that's the main thing; and surely all your customers insist on PCWs?

We currently have a well qualified reviewer looking at accounting packages for us, hopefully for the July issue, and it should be definitive.

These memory faults you speak of are news to me. If anyone else has any knowledge of them, and no mere opinion please, I'd like to know more.

Finally, of all the reasoning offered concerning the LocoToy spoof, yours is the most elegant.

### Big thought

Ever since you reported Howard Fisher forecasting a 512k expansion card ('Tomorrows World' in your January issue) I have been scanning your adverts. I received my April issue on 22nd March, and delightedly posted my order the next day, marvelling at your combined perspicacity.

Today, 18 days later (all right, including bank holiday) nothing had happened, and in reply to my enquiry I was told that 'due to unprecedented demand' (familiar?) it will be about another ten days before it is my turn.

When will British companies learn that nothing is more damaging to a new product than fanfares and inability to meet demand?

Henning Brondum-Nielsen  
Rannoch Station  
Perthshire

**8000 PLUS.** It's become almost a tradition in the computer world to preannounce products; I blame a lot of it on Sir Clive myself. As to the expansion card, it does exist, some have been sent out and production is, as they say, being ramped up. I'm still waiting for mine, too.

### Unsolicited testimonial

After PROTEXT and NSWEEP, both of which have received high praise in 8000 Plus, one of the most used pieces of software in my collection is Z8E. This is in the public domain and so cannot be faulted on price.

The program can be looked on as an upgraded version of SID which is already supplied with the PCW and is often used in the Tipoffs. It has several extra facilities that make it far more flexible when examining programs, and changing them.

For those who have not come across either program they are basically debugging tools that enable you to look within programs and if need be change parts of them. Z8E comes with a good 90 page manual on disc, SID only has a couple of unhelpful paragraphs in the PCW manual. Two commands that I have found valuable in Z8E that are not available in SID are F (find) and J (animated full-screen debugging).

F will look for alphanumeric strings, HEX numbers, DECIMAL numbers and the addresses of symbols or any combination of these. This enables areas of text to be found so that messages that appear on the screen can be found. F can then help to find the area of



code that interprets key presses by looking for FE,58, for example, which is the code for CP 'X'.

These simple commands have enabled me to customise several pieces of software to make use of the PCW keyboard. Although I must stress that some understanding of machine code is required to know what to look for.

The J command has helped me understand the working of programs by displaying the program, working, in front of my very eyes, one command after another, while simultaneously showing the effect each command has on the various registers. Break points can be used to skip parts that you do not want to examine before using the J command.

There is a version of Z8E modified for the PCW available from the CP/M User Group's software library (or BB on 0753 868196).

**G R Yorke**  
Newcastle  
Staffs

**8000 PLUS** I had to cut your letter a lot to fit it in - but I know this to be an easy program to wax lyrical about; I got it years ago and had to modify it myself. It's probably the best monitor in or out of the public domain with some amazing features. For example, to name just twenty three of (cont. page 106).

## Information generator

I am a newcomer to the world of computing and have purchased an Amstrad 8256 on which to run a small motorcycle club of 250 members. What I would like to do if it is possible is to take the 8256 into the field and run it off of a generator, the idea being to get instant results on the day's racing. What do I need between the generator and the computer to protect it, and make it work?

**C D Clifton**  
Feltham  
Middx

**8000 PLUS** From what I've been hearing about the insensitivity of the PCW to fluctuating voltages, I suspect you can run it from any 240V generator without further ado. (Having said which, if you plan to buy a generator get an assurance that you can run domestic electronic equipment from it first).

## What do we do now?

I am a subscriber to 8000 Plus and last December ordered a PCW game from Comsoft, Coldstream, Scotland through an advertisement in your magazine. The problems which I encountered are documented in correspondence -



"I KNEW I SHOULDN'T HAVE BOUGHT THE CHEAP VERSION"

copies of which I enclose. Whilst the matter is self-explanatory I should like to make the following observations.

At no time have I had the courtesy of a reply from Comsoft. I have rung them on numerous occasions (at no little expense) and they keep referring me to a firm called Copy Comm Software who, I understand, supplied the disc to Comsoft.

Repeated telephone calls to Copy Comm have elicited a variety of answers ranging from "You shouldn't need any instruction book" to "There is no hints mode on the disc as it was copied from a bigger one and there is no room for it on a 31/2" disc! All of which is extremely unsatisfactory.

I returned the disc to Comsoft by recorded delivery on 22 March 1989. I telephoned them ten days later and they told me that it had "just arrived" - but couldn't tell me what was happening.

As these two companies are regular advertisers in your magazine, I should be grateful if you could exert a little pressure to bring this matter to a satisfactory conclusion.

**Patrick Reade**  
St Saviour's  
Guernsey

**8000 PLUS** When Infocom pulled out of the PCW games market (booh, hiss) it looked as if two of the best adventure games ever would be lost to us, (Leather Goddesses of Phobos and Hitch Hikers Guide to the Galaxy) so six brownie points for any kind of continuing availability. However, when the goodies arrived at Copy Comm it proved to contain PC documentation, and so has now been withdrawn from sale. As far as we know these two games cannot now be bought anywhere.

Personally, if my choice was between having something I want, but imperfect, or not having it at all, then it isn't much of a choice, is it? If you feel it isn't 'fit for the purpose for which it was sold' then you must demand your money back - what else can I say?

## Meaningful

A quick glance at a couple of issues of 8000 Plus reveals the drawback of relying too heavily on spelling checkers: breath for breathe, computes for computers, practise for practice. All good words, but wrong.

**Bob Warwicker**  
Oxford  
Oxon

**8000 PLUS** Cursors!

## No fun any more

I was about to write a few months back, when there came the announcement of the change in editor. I thus decided to give you a chance to make a change, but things have not improved and so I am putting cursor to greenscreen. Let me establish my credentials by saying that I possess and regularly use every issue (except the legendary No 2).

My plea is for a reduction - or better still cessation - of the 'jokey' headings to articles, paragraphs and pictures. I fully understand the desire to lighten the presentation of a moderately cerebral subject, but there are limits, and I am rapidly approaching mine!

It's a good mag. It's a technical subject. Why break your neck trying to be funny?

**D B Minterne**  
Dorchester  
Dorset

**8000 PLUS** You've bought every issue - if only we could get it so wrong for everyone. To answer your question though, serious can too quickly become tedious; we try to get our facts right and present information clearly but, equally, we try hard not to take life too seriously. Look what being too serious did to Hemingway.

## Upwardly mobile

Having read an article on memory upgrade in the June '87 issue I

decided to have a go. Great, one of the best things I have got for my 8256 is those little chips. Although the price of the kits has gone up drastically I found some individual chips, as mentioned in the miser note, to be cheaper.

The next thing for my upgrade was a second drive. I didn't want another 3" drive and having read Steve Patient's article in the January '89 issue I decided to go for the 40/80 switchable 5.25" external drive with its own PSU.

However, I did not want to pay £189 + VAT to buy one from Peartree or Pace. So I looked around for a while and then found VOLTACE, a company in Baldock, Herts.

VOLTACE sold me a 5.25" 40/80 switchable external drive with its own PSU and connecting cable. It was not at all difficult to connect the drive: just put on a plug, and having left the drive connector out of the PCW casing while doing the memory upgrade (as recommended in the memory upgrade article), connect the drive to the PCW connector and boot up.

The cost of the drive was only £115 inclusive of VAT and postage. The drive is not an inferior make, it's a Teac drive which is just about the best. With the case, PSU and cable being assembled to the drive by VOLTACE, it just couldn't be easier.

I would like to thank you and your magazine for all the assistance and I hope that this letter may be of some use or interest to you.

**P J Entwisle**  
Stanmore  
Middx

**8000 PLUS** We're always interested to hear from anyone for any reason; it's especially good, however, to hear from those who feel we've helped them.

Upgrading PCWs isn't nearly as difficult as it might at first seem, and memory upgrades are easily the most cost effective way of increasing the functionality of your PCW.

## Irritating practices

I find it disgusting that companies can advertise products at bargain rates in your magazine; then when you place your order by credit card they invoice you at whatever price they choose on the day.

On page 32 of your April issue, Copy Comm Software advertised discs at £11.95 for five. After TWO weeks the order at last arrived without any explanation and I discovered that they had taken the liberty of charging £13.95.

**C Stirling**  
Fife



**8000 PLUS** Copy Comm say that Amsoft discs (£11.95) became unavailable after the advertisements went in, so they were supplying Maxell discs instead, which are dearer. All telephone callers are being advised of this while mail orders are being supplied at the prices quoted on the orders. Yours seems to have slipped though and I should have a word with them about it.

It is in fact illegal for a company to take more from an account than the buyer has authorised.

## Chickens revisted

Now that you have had your cheap laugh at the expense of John Melvin (Headless Chicken mode, PS issue 32) may I ask for an answer to his perfectly reasonable and sensible question?

The question has been the subject of much serious investigation for some years, with a lot of considered opinion that there seems to be some concern regarding radioactive emission from VDUs.

Do you publish personal criticism?

Ian Lee  
Kenton  
Middx

**8000 PLUS** Yes, I publish personal criticism.

I get a lot of letters that I can't believe are meant to be taken seriously, including a lot written, apparently, in all seriousness. I admit to misjudging this one but I would offer the explanation that I thought 8000 Plus readers were better informed than other groups of computer users (see News Plus in this issue).

The original report linking miscarriage with VDUs came from Oakland, California,

(New Scientist reported this in June, 1988). The effects they claim to have observed have not, apparently, been noted elsewhere despite much research.

You are safer sitting in front of your PCW, pregnant or not, than engaged in most other activities. If you are pregnant – don't smoke or drink, these socially acceptable forms of slow suicide really are dangerous to unborn children

## Mite be

I lost some files on Sunday; on Tuesday I thought let's see what happens, and put the disc in to verify. And it was verified. Unfortunately I had still lost the files. However whilst driving down to Somerton, knowing that in going down to meet the Intelligentsia I should need to be brighter than normal, I put my brain into gear and started thinking.

In the early days of Japanese camera imports there were occasional troubles with mysterious insects which got onto the pentaprisms and could be seen walking about. This I know as fact because I had one in my Pentax S3 in 1962. Could it be possible that very small mites could interrupt the magnetic messages from the surface of the disc? If a finger smear can do it, how about a mite squashed between the head which reads the message, and the disc; then when it has dried – no trouble again?

If you think that this is all a load of codswallop put it down to my having had a good day and being a little light headed from having a trip down to Somerton on a real spring day.

Derek B Lilly  
Clevedon  
Somerset

**8000 PLUS** Korean disc mites live exclusively on address marks, fortunately they are still very rare. Avoid inserting your discs in strange slots, you don't know who has been in there before you.

(This answer is a joke. Do not spray fly killer into your disc drives).

## Dissatisfied customer?

As a reader from the start and a subscriber for two years, you are to be congratulated on an excellent magazine. But at times you start to reveal signs of complacency. Your reply to the software thief in the April issue was one of your more casual efforts.

By publishing it, the software houses have his name so we can now learn how really concerned they are. It is theft and they should prosecute both him and his

accomplices. But your last two sentences were unnecessary for they reveal a desire to score over easy targets.

Further on and to cap it all, you casually mention that you cut readers' letters. Whilst your readers would recognise this as a practical need, should you boast about it in an issue in which you have indulged your self-righteousness and missed a point into the bargain?

I have deliberately chosen a case where neither of us would disagree that your comments weren't deserved; merely that they were out of place. I am constantly surprised that a professional and established magazine such as yours often fails to recognise that it is easy to cause offence to readers who include women, Scots and those of us who use hard plastic cases. I accept that these might seem to be simple mistakes and your reactions will be that I am over-reacting. A small point maybe – but is it?

George Daulby  
London

**8000 PLUS** This was a very long letter, but I feel the points of interest to our readers are still here; that's one of the jobs an editor does – not something I was boasting about, merely a point of information.

As to the strangely naive thief, the software house concerned are in touch with him. I didn't see my comments as scoring points; since it is in the nature of things that I have the last word, doing so is too easy to be satisfying.

Your last point on causing offence to women and Scots (for example) is a strange one. I am a man (on good days) yet don't feel jokes about men are personal attacks, after all, I'm also a writer, a jogger, an Englishman, over thirty, a father, a science fiction reader and many other things beside. One can only feel sadness for those who feel they have such a narrow and specific identity that any joke concerning it must be a personal attack.

## Letter from America

After I accidentally tried to copy The Most Important Disc In The World onto itself one morning at about 1:30 am, my heart sank! The next day, when all thoughts of suicide had passed (well, most of them anyway) I scouted through my last issue of 8000 Plus and found a review of PCW ToolKit by Moonstone computing, and made arrangements to obtain a copy.

The program did everything it promised, and the manual was very well written for the novice programmer. In fact, I did manage

to save about 98% of the data on the disc, and did it on the first night that I tried the program. This is the sort of product that everyone feels they will never need, until they see the error message on the screen. I recommend it to every PCW user as an early purchase. It may prove to be the best £19.95 every spent!

I have been a fan of 8000 Plus for some time now. After I purchased my 8256, I obtained copies of several Amstrad related magazines from England, and after reviewing them, chose to stick with 8000 Plus. I have friends and relatives in England so I have a copy sent to me monthly along with an assortment of newspapers and other magazines.

I located my primary mail order supplier, MJC Supplies, through their ads in the magazine. I wrote to every firm which advertised "Export Orders Welcome", and MJC was the only one which responded. I now buy programs for myself and two other users through MJC, and have mentioned them in the newsletter for a users' group to which I belong.

I have enjoyed 8000 Plus and feel that I have gotten more out of my machine by reading your magazine. I look forward to more of the same.

Peter Little  
CA, USA

**8000 PLUS** Perhaps not exactly the same, we try to vary the order of the words each month – but we keep the jokes the same.

## Map happy

Could you please tell me if there is a graphics or drawing program suitable for constructing maps. I need to be able to draw maps of imaginary places (countries as well as towns) and would like facilities which would provide me with cross-hatching and/or other symbols useful for showing features such as marshes, mud-flats and mountains etc. I have a PCW 8256.

Cathie Gill  
Methlick  
Aberdeenshire

**8000 PLUS** Constructing maps on the PCW is one of those things no-one has ever asked about before. Presumably, you wish to be able to alter it fairly frequently, either adding and subtracting symbols or trying new layouts.

The best way to do it would be with a drawing package, and since you'll need to work freehand rather than to an engineering style I would suggest something like Stop Press. How about letting us see the results?



"I DON'T REALLY THINK MUCH TO THIS RADIATION SCARE"



## £ £ LOOK & SAVE £ £

|                              |       |                                |       |
|------------------------------|-------|--------------------------------|-------|
| Micro Simplex Accounts.....  | 90.95 | Fleet Street Editor Plus.....  | 39.95 |
| Sage Popular Accounts.....   | 73.45 | Protext.....                   | 46.99 |
| Sage Popular Accounts +..... | 99.95 | Stockmarket.....               | 34.95 |
| Sage Payroll.....            | 60.95 | Masterscan.....                | 55.95 |
| Signwriter.....              | 29.95 | Desktop Publisher & Mouse..... | 57.95 |
| Easy Labeller.....           | 24.99 | Desktop Publisher.....         | 20.00 |
| Stop Press.....              | 32.99 | Masterfile 8000.....           | 32.00 |
| LocoMail 2.....              | 29.95 | Locoscript 2 with Spell.....   | 34.90 |
| Locospell 2.....             | 18.95 | Locoscript 2.....              | 23.95 |
| LocoFile.....                | 29.95 | LocoFont.....                  | 18.95 |

### ★ ★ SPECIAL ★ ★

|                                   |       |
|-----------------------------------|-------|
| MINI OFFICE PROF. PLUS (NEW)..... | 39.00 |
| STOP PRESS + MOUSE.....           | 65.00 |
| MONEY MANAGER PLUS.....           | 24.00 |
| PERSONAL ANCESTRAL FILE.....      | 59.00 |

ALL PRICES INCLUDE VAT/1ST CLASS P & P  
CHEQUES /PO's ONLY PLEASE

### KINTECH

5b, Highfield Industrial Estate  
Camelford, Cornwall PL32 9RA

TEL 0840 - 212063

FAX 0840 -212064

## UTILITIES PLUS

EASY COPY programs and files from disc to disc. LOOK-UP search and display records with key words or phrases. LABELS puts address lists onto sticky labels. NOTEPAD screen text editor writes direct to disc from CP/M. COLUMNS converts text files into 2, 4 or more columns. WORD sentence and character counter. FILE SORTER alphanumeric order and additional options. CALENDAR program for each and every year. FIND AND REPLACE text in files with wildcard options. MATRIX PRINTER SETUP commands include large print, high quality, underline, reset, page formats and many more. PRINTOUT files to printer. KEY CODES tester, ASCII CODES and GRAPHICS characters demo. MOON phases, DAY of week, NUMBER of days, and hours minutes seconds TIMER with beeper. CP/M COMMANDS - lots of new commands

Over sixty programs and commands for £24.95 inclusive. PCW 8256, 8512 and 9512.  
Money back guarantee and quick despatch.



Cheques payable to  
Disc Design (Dept. 8000), 1st Floor, Portico House,  
25 Bailgate, Lincoln, LN1 3AP

## UTILITIES PLUS

## PCW OWNERS IN THE NORTH EAST

A SHOP THAT UNDERSTANDS ALL YOUR NEEDS  
WE STOCK THE LARGEST RANGE OF PCW SOFTWARE IN THE AREA  
PCW UPGRADES AND REPAIRS

### JUNE SPECIAL OFFERS

|                                    |         |
|------------------------------------|---------|
| Mini Office Professional Plus..... | £34.95  |
| Locofile.....                      | £24.95  |
| Amscase ( Holds 10 3" disks )..... | £3.99   |
| 3" Disk Drive Cleaning Kit.....    | £4.50   |
| Clean Print - Cleaning Ribbon..... | £6.50   |
| PCW Printer Ribbons.....           | £3.99   |
| Star LLC10 Printer.....            | £199.00 |
| Stop Press.....                    | £39.95  |

### DIXONS COMPUTER CENTRE

Leazes Arcade, Leazes Park Road,  
Newcastle on Tyne

TEL : (091) 261 4088

All Prices include VAT  
P & P £1 per order

VISA

## ADVERTISERS INDEX

|                          |        |                            |           |
|--------------------------|--------|----------------------------|-----------|
| Abacus.....              | 64     | Jacaby.....                | 64        |
| Advantage.....           | 16     | K&M Computers.....         | 64        |
| Aladdink.....            | 51     | KCS.....                   | 39        |
| Ansible.....             | 45     | K.F. Heywood.....          | 56        |
| Arnor.....               | 31     | Kador.....                 | 89        |
| Astrocalc.....           | 60     | Kintech.....               | 89        |
| BBD Dust Covers.....     | 48     | Locomotive Software.....   | 4, 21, 28 |
| Blackmore.....           | 77     | MJC Supplies.....          | 42        |
| Bradway.....             | 56     | Mansall Design.....        | 56        |
| Brainstorm.....          | 45     | Margin Maker.....          | 45        |
| CP Software.....         | IFC    | Meridian.....              | 44        |
| Caspell.....             | 13     | Micro Media.....           | 45        |
| Clarity Guides.....      | 68     | Microsnips.....            | 41        |
| Com-Stax.....            | 77     | Miles Better Software..... | 56        |
| Composit Software.....   | 58     | Moonstone.....             | 48        |
| Compumart.....           | IBC    | Newstar.....               | OBC       |
| Connect.....             | 16     | Rombo.....                 | 56        |
| Copy Comm.....           | 44     | SBS.....                   | 9         |
| Cornix.....              | 58     | S.C. Coleman.....          | 64        |
| Creative Technology..... | 41     | SCA Systems.....           | 48        |
| Cyca.....                | 52-53  | SKM.....                   | 14        |
| DGA Software.....        | 67     | SM Engineering.....        | 51        |
| Data Access.....         | 60     | Silicon City.....          | 67        |
| Dataline.....            | 64     | Software Imperative.....   | 37        |
| Digit.....               | 60     | Sportsoft.....             | 89        |
| Disc Design.....         | 67, 89 | Suredata.....              | 51        |
| Discovery Software.....  | 68     | Swallowsoft.....           | 68        |
| Dixons.....              | 89     | Tableaux Vivants.....      | 56        |
| Encyclosoft.....         | 60     | Three Inch Software.....   | 56        |
| HD Design.....           | 64     | Thurston Techniques.....   | 51        |
| Headline.....            | 68     | Wave.....                  | 68        |
| Hisoft.....              | 74     | West of Britain.....       | 6         |
| Homebased Business.....  | 77     | Wight Scientific.....      | 67        |
| Isenstein.....           | 24-25  | Worldwide.....             | 77        |

## Seal'n Type™



Pat. Pending & Reg. Designs

### Type-through Protective Keyboard Cover

from  
£6.50  
incl.

- Accidents can happen! Avoid costly repairs to delicate electronics.
- Long lasting protection against spills, dust, ash, grime etc.
- Made of clear, flexible PVC moulded to each key
- Available for over 200 popular computer keyboards.
- Can be custom-made for any push-button machine.

Manufactured by KADOR in U.K.

## PEACE 'n QUIET : ACOUSTIC BOX for PRINTER

NOW you can hold a telephone conversation while your printer stays on.

- ★ Lightweight, compact in silver grey.
- ★ Optional stand 7cm high.
- ★ Paper slots for single & continuous stationery.
- ★ Easy DIY & simple to use.
- ★ Available for most printers.



from  
£33.95  
incl.

### RE-INKING SERVICE

### CONTACT

Quality ultra-fine framed mesh. Easy to apply velcro fittings.



From £16.50 incl.

All types of fabric ribbons re-inked like new. Same day service. FREE transporter SAE From £1.90 each.

LANGUAGE CONVERSION KEY TOP SETS £19.95 per set

Alters the language of your keyboard.

**KADOR**  
Unit 4  
Pontcynon Ind. Est.  
Abercynon  
Mid Glam.  
CF45 4EP  
Tel: 0443 740281

Trade Enquiries Welcome

## SPORTSOFT

QUALITY APPLICATION SOFTWARE FOR PCW's  
LEAGUE TABLES.....£24

Applicable most sports, create unlimited leagues, enter results, print results and auto-updated tables to chosen format. Menu driven simple entry. Locoscript manual.

COMPETITION FIXTURES.....£24

Versatile fixture generator for all sports. Creates fixtures for any number of leagues. Up to 4 meetings per season. Stores fixtures, print selections whenever required. Ground sharing, dating and editing facilities. Knockout draws. Locoscript manual.

SPECIAL OFFER.....£40 FOR BOTH

LARGE SAE FOR DETAILS TELEPHONE 0229 88517

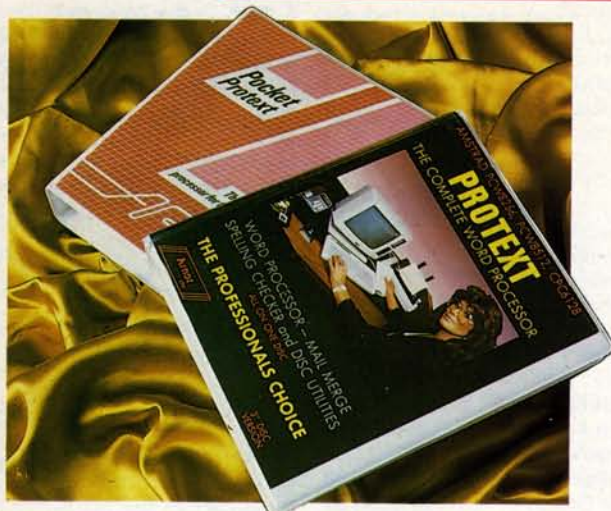
SPORTSOFT, 16 Orchard Road, Bardsea,  
Ulverston, LA12 9QN

RING OR WRITE for our FREE comprehensive CATALOGUE



# PROTEXT COMPETITION

The great new 8000 Plus competition for the nearly intellectual



**Y**es, this is only the first of our great new competitions in which we are offering some of the very best products from top companies for absolutely nothing.

This month you have a chance at three best selling products from Arnor: Protext, the fastest word processor on the PCW market (and on most other machines too), its little brother, Pocket Protext, every bit as fast but not quite so full-featured, and Prospell, the fastest spell checker you can buy – or win.

All you have to do is decide who said each of these five lesser-known quotes and put

## Quotes:

- 1/ Money can't buy you love.
- 2/ No man but a blockhead ever wrote; except for money.
- 3/ Pan Am takes good care of you. Securicor cares. IBM says the customer is King. At Amstrad, we just want your money.
- 4/ It is a truth, universally acknowledged, that a single man in possession of a good fortune must be in want of a wife.
- 5/ Money is like muck; no good lest it be spread.

## People quoted:

- A/ Samuel Johnson
- B/ Jane Austen
- C/ Francis Bacon
- D/ Alan Sugar
- E/ Lennon-McCartney

the letter by the number in the correct order on a postcard. For example, if you think Francis Bacon said 'Money can't buy you love' then the first answer should be 1 – C.

Answers should be on a postcard or the outside of a sealed envelope along with your name and address (in case you win) and sent to Protext Competition, 8000 Plus, 4 Queen St, Bath, BA1 1EJ. All entries must be in by June 22nd 1989.

## This month – next month

If you're wondering where the last part of the LocoFile tutorial has got to, never fear, it hasn't been forgotten, merely postponed. We shall still be covering all those nitty gritty file transfer problems but we thought you'd like a short intermission – no? Well we would.

What about our first DIY project? With houses getting smaller and smaller (or is it the children getting bigger?) few of us have any chance at a study (I always liked the american 'den'), so anything that tidies the place up is a must. Let's hear your ideas on this subject.

And while on the subject of ideas, we're thinking of running this competition as a regular feature and so we're looking for puzzles, enigmas, and conundrums suitable for the likes of us (not too difficult) and with a PCW bent. If you think you can come up with the goods drop us a line with some examples – your own, naturally. So there are two bites at the cherry: if you can't win the competition you might still be able to sell us a competition idea.

There hasn't been very much in 8000 Plus recently on programming languages (who said hurrah?) so we were especially pleased to be able to slip a little bit of Logo in disguised as an article on Artificial Intelligence; great stuff, eh?

One final thought: you'll have noticed a few changes creeping into your favourite magazine, hopefully all improvements, but the one we're most keen on is improving News Plus so that it reflects the doings of PCW owners and users more closely: if you think you've got news – tell us about it.

### ● Accounting software

For the serious businessman or budding entrepreneur Andrew Bibby reviews the software you need to run your business

### ● PCW in control

The PCW can run a business in more ways than one. We look at how some companies are putting the PCW to work

### ● HTB Review

We look at a drawing package for the designer

### ● CP/M beginners

Continuing our series on getting to grips with CP/M

### ● Langford

The best computer magazine columnist in the world – so he says

### ● How to program

Straight from an expert – our new series by the author of CP Software's Lightning Basic extensions – great stuff, don't miss it.

### ● DTP

Last in our introductory series on Stop Press – getting to grips with graphics

### ● Artificial Intelligence

Second half of our series on the problems of thinking in silicon

### ● Peter Hadleigh

Our new user puts his PCW to work preparing catalogues

### ● Investor

A look at a program designed to make your money grow

### ● Best seller

Can you write one?



# Compumart

**A Great Deal More  
For a Good  
Deal Less!**

**-Free-  
FAST  
DELIVERY**



- ▶ Genuine Amsoft CF2 3" disks
- ▶ Guaranteed Amsoft quality and reliability
- ▶ Supplied in the new protective sleeves
- ▶ Buy from the UK's largest supplier

**Amsoft**  
3" CF2 DISKS

**BOX OF FIVE** Only **£10.39** Ex.VAT  
**BOX OF TEN** Only **£19.99** Ex.VAT

## AMS 20L DISK STORAGE BOX



The ideal way to file your valuable disks protected from dust, spilt drinks etc.

**SPECIAL OFFER**

**FREE**

AMSOFT 3" CF2 DISK WITH EVERY AMS20L BOX

- ▶ Holds 21 cased 3" CF2's or up to 40 uncased.
- ▶ Hinged, smoked perspex lockable lid

Only **£11.26** Ex.VAT

## AMSCASE

**NEW FROM AMSTRAD**

**AMSCASE 3" DISK LIBRARY CASE**

- ▶ Holds 10 uncased 3" Disks
- ▶ Unique "pop-up" feature to display your disks
- ▶ High quality, neat compact design

Only **£5.90**

Introductory Offer!



## MISCELLANEOUS

### CLEANPRINT-Cleaning Ribbon



- ▶ Removes ink deposits
- ▶ Maintains print quality
- ▶ Protect and lubricates the print head

PCW 8 SERIES **£5.90**  
PCW 9 SERIES **£5.20**

**NEW LOWER PRICES!**

### CLEARHEAD

- ▶ Safer data storage
- ▶ Easy to use
- ▶ Prolonged disk and drive life

Only **£5.90**



### QUALITY PRINTER RIBBONS

Genuine Amstrad or quality compatible ribbons at new **LOWER PRICES!**

|              | GENUINE AMSTRAD |             | QUALITY COMPATIBLE |                   |
|--------------|-----------------|-------------|--------------------|-------------------|
|              | FABRIC          | CARBON      | FABRIC             | CARBON            |
| PCW 8 SERIES | £4.25           | £4.60       | £2.60              | £2.60             |
|              |                 | BLACK £2.95 |                    | MULTISTRIKE £2.40 |
| PCW 9 SERIES |                 | BLUE £3.95  | £2.40              | MULTISTRIKE £2.40 |
|              |                 | BROWN £3.95 |                    |                   |

Minimum Order - 2 Ribbons unless ordered with other items. Prices are per ribbon and ex. VAT.

### MISCELLANEOUS

#### Listing Paper

2000 sheets 11"x9 1/2", 60gsm **£13.00**

#### Dust Covers

**NEW LOWER PRICES!**

High quality transparent PVC

PCW 8 Series - 2 Piece **£7.80**  
PCW 8 Series - 3 Piece **£8.60**  
PCW 9 Series - 2 Piece **£7.80**

#### Screen Filters

PCW 8/9 Series **£14.95**  
CPC Mono/Colour **£10.39**

**24HR ORDER HOTLINE (0509) 610444**



**Superb**

**Service**

**Great**

**Guarantees**

**Better**

**Back-up**

- ▶ Usually same day despatch on most items
- ▶ FREE, next working day delivery on all hardware, allow 2-5 days for other items
- ▶ Large stocks for immediate despatch
- ▶ FAST, efficient service

- ▶ If any item proves to have a manufacturing fault within 30 days we will replace free of charge or refund in full
- ▶ After 30 days and within the warranty period, we will repair at our expense

- ▶ Friendly advice and after sales support
- ▶ Any problems quickly resolved to your complete satisfaction
- ▶ Special offers to existing customers. We aim to please... and usually do!

**All prices exclusive of VAT**

Prices/delivery subject to availability and only applicable to UK mainland, N. Ireland and BFPO's. E&OE  
Compumart are licensed credit brokers. Simply ask for written details.

**Compumart**

A Great Deal More, For a Good Deal Less

COMPUMART LTD  
FREEPOST (80+)  
LOUGHBOROUGH  
LEICS LE11 0BR  
TEL: 0509 610444  
FAX: 0509 610235



# Still the only high-res graphics spreadsheet for the PCW family

The *Cracker* is a unique spreadsheet for PCW users. As well as providing the features and facilities of a full function financial and scientific spreadsheet, it can create complex graphs on the screen and (dot matrix) printer. The latest 'turbo' version has speeded up screen handling considerably, but still costs only £49.95 inc VAT...

- ❑ A new manual with comprehensive indexing and many examples makes the power of *Cracker* accessible to a wider audience.
- ❑ Suitable for simple adding up as well as complex structural analysis.
- ❑ High resolution graphics that can be used as a stand-alone graphics package or from calculated values:  
Bar charts, stacked bar, hi-lo, pie, line, area, XY, LogX:Y, LogX:LogY  
(With multiple labelling options)
- ❑ A very straightforward upgrade path to 16 bit editions on PCDOS and CDOS.

## Powerful command structures

- ❑ DO-WHILE iterative loops.
- ❑ Day, date and timing functions:  
DATE, DATEAFTER, DAYSAPART  
DELAY, TIMELAPSE etc.
- ❑ Macro facilities ...and much more!

## Cracker:

### Original and still best

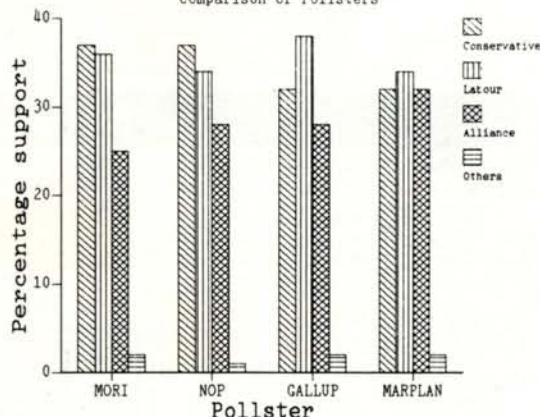
*Cracker* was originally created over 5 years ago by Ian Searle to provide himself with a range of facilities that he couldn't obtain in existing spreadsheet and calc programs.

So *Cracker* has one of the longest pedigrees in the business. The fact that it has maintained a consistent interface when the numerous enhancements and extensions have been added - without undermining the basic elegance and power of the product - is a tribute to the original concept.

*Cracker 2* continues to evolve as a 'live' product under current development by its original author: few if any other full-featured spreadsheets for the PCW can make this claim.

## OPINION POLLS

Comparison of Pollsters



Example plot from a PCW printer

## Paperback Software UK Limited

The Widford Old Rectory, London Road, Chelmsford, CM2 8TE  
 telephone 0245 265017, telex 995194 NEWSTA G, Fax 0245 263969  
 Paperback Software is available at Comet, Ryman, Dixons, Wilding  
 and good computer stores everywhere

Phone or send for our  
 latest catalogue of  
 PCW and PC  
 software products